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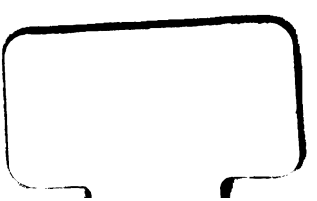

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THE

MIDSHIPMAN'S

OR

British Mariner's

VOCABULARY;

BEING A

UNIVERSAL DICTIONARY

OF

TECHNICAL TERMS

AND

SEA PHRASES

used in the

CONSTRUCTION, EQUIPMENT, MANAGEMENT AND MILITARY OPERATIONS OF A SHIP.

By J. J. MOORE.

SECOND EDITION.

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Feb. 1. 1801.

PREFACE.

IN compiling the following sheets, the editor has not only collected the most valuable part of what has already been published in the English language, but has also consulted the best French authors on the subject, adding thereto many observations, which during a long service in the *Royal Navy* he has been enabled to make.

In a country boasting the superiority of its naval tactics, the Editor regrets that some person, better qualified than himself, has not undertaken to render the phraseology of mariners more familiar by a work of this description, particularly as this Phraseology is peculiar to themselves, and without a knowledge of which it is impossible to become a seaman.

Falconer's Marine Dictionary, a work highly esteemed for the scientific and extensive knowledge it embraces, is the only book that has hitherto appeared in the English language, as a guide to seamen, on which any dependance can be placed. But this has been found by many too expensive at the outset.

To familiarize what has appeared too scientific or abstruse in others, has been the principal aim of the Editor of this work. How far he has succeeded will be best known, by the reception it meets with. He can only add farther, that he will be thankful for any hints that may enable him to improve a future edition.

THE

BRITISH MARINER's

VOCABULARY.

A.

ABACK, the situation of the sails when their surfaces are pressed against the masts by the force of the wind.

Taken ABACK, is when they are brought into this situation by a sudden change of the wind, or by inattention of the *helmsman*.

Laid ABACK, is when the sails are purposely placed in this position to give the ship *stern-way*, or to prevent her advancing.

Lay all flat ABACK, the order to arrange all the sails in that situation.

ABAFT, the hinder part of a ship, or all those parts which lie towards the stern; used relatively, it signifies further aft, or nearer the stern, as the *barricade* is *abaft* the main-mast, that is, nearer to the stern.

ABAFT *the beam*, implies that the object spoken of is in some part of that arch of the horizon contained between a line drawn at right angles to the keel, and the point to which the ship's stern is directed.

ABLE-BODIED *Seamen*, implies one who is not only *able* to work, but who is also well acquainted with his duty as a *seaman*.

ABOARD, the inside of a ship.

To go ABOARD, is to enter a ship.

To fall ABOARD *of*, to strike against another ship, whether by design, or by the force of the wind or current.

ABOARD *main tack*, the order to draw one of the lower corners of the main-sail down to the *chesstree*.

ABOUT, the situation of a ship immediately after she has *tacked*, or changed her course, by *going about* and standing on the other tack.

ABOUT *ship*; or, *Ready* ABOUT O, the order to the sailors to prepare for *tacking*, or *going about*.

ABREAST, side by side, or opposite to: the situation of two or more ships with their sides parallel to each other, and their heads equally advanced, as in A B C, fig. 21, pl. 1; also of any object in a line with the beam of a ship: thus the ships B and C are both abreast of the ship A, fig. 22, pl. 1.

Line ABREAST. See LINE.

ABREAST *within the ship*, implies on a parallel line with the beam, or at right angles with the keel; as *abreast* the fore hatchway, in opposition to *afore* or *abaft* the hatchway.

ABREAST of a *place*, means directly opposite to it.

A-BURTON, is a term applied to such casks as are stowed athwart ships, or on a line with the beam.

ACORN, a little ornamental piece of wood, fixed on the uppermost point of the *spindle*, above the *vane*, to prevent its being blown off.

ACCOMMODATION LADDER. See LADDER.

ACTION, is used in the same sense as ENGAGEMENT; which see.

ADMIRAL, an officer of the first rank and command in the *fleet*, and who is distinguished by a flag displayed at the main-top-gallant-mast head. Also, an officer who superintends the naval forces of a nation, and who is authorized to determine in all maritime cases.

ADMIRAL *of the fleet*, the highest officer under the *Admiralty* of Great Britain; when he embarks on any expedition, he is distinguished by the union flag at the main-top-gallant-mast head.

Vice ADMIRAL, the officer next in rank and command to *Admiral*; his flag is displayed at the fore-top-gallant-mast head.

Vice ADMIRAL, is also a civil officer appointed by the Lords Commissioners of the Admiralty. There are several of these officers established in different parts of Great Britain, with judges and marshals under them, for executing jurisdiction within their respective districts; their decisions, however, are not final, an appeal lying to the Court of Admiralty in London. For further distinctions of *Admirals*, see FLAG.

Rear ADMIRAL, the officer next in rank and command to the *Vice Admiral*, and who carries his flag at the mizen-top-gallant-mast head.

ADMIRALTY, the office of Lord High Admiral, whether discharged by one single person, or by joint commissioners called Lords of the Admiralty, who are generally seven in number.

ADRIFT, the state of a vessel broke loose from her moorings and driving about without control.

ADVICE BOAT, a small vessel employed to carry expresses with all possible dispatch.

AFLOAT, floating on the water, and free or clear from the ground.

AFORE, the foremost parts of a ship, or those which lie near the stem: relatively, it implies further forward, or nearer the stem, as, the manger stands *afore* the foremast. It is used in contradistinction to *abaft*.

AFT, behind or near the stern of the ship, being opposed to *fore*; as, run out the guns *fore and aft*, that is, from one end of the ship to the other.

Right AFT, in a direct line with the stern.

AFT, is also applied to some of the sheets or ropes fastened to the corners of the sails; as, haul *aft* the *jib-sheet*, *fore-sheet*, &c. that is, pull the corner of the *jib*, the *fore-sail*, &c. more towards the stern.

AFTER, is applied to any object situated in the hinder part of the ship; as, the *after-hatchway*, the *after-sails*, &c.

AFTER GUARD, in the royal navy, the seamen who are stationed on the poop or *after-part* of the vessel, to attend and work the *after-sails*, &c.

AFTER SAILS, usually implies all those which are extended on the mizen-mast, or on the stays between the mizen and main-masts; they are opposed to the *head-sails* to balance the ship when under sail. See HEAD SAILS.

AGENT *Victualler*, an officer stationed at several ports to regulate the victualling of the king's ships, under the direction of the commissioners for victualling the navy.

Navy AGENT, a person on shore employed by the officers of the navy to receive their pay, prize-money, &c. for their use.

AGROUND, the situation of a ship, whose bottom or any part of it rests upon the ground.

AHEAD, further onward than the ship, or being immediately on that point of the compass to which her head or stem is directed; in opposition to ASTERN.

To run AHEAD *of one's reckoning*, to sail beyond the place erroneously estimated in the *Dead reckoning* as the ship's station.

Line AHEAD. See LINE.

A-HULL, the situation of a ship when all her sails are furled, and her helm lashed on the lee-side; she then lies nearly with her side to the wind and sea, her head somewhat turned towards the direction of the wind. See TRYING.

AIM, the direction of a cannon or other fire-arm to its object.

To take AIM, is to point a gun to its object according to the *point blank range*. See RANGE.

ALEE, the situation of the helm when pushed close to the lee-side of the ship.

Hard ALEE, } order to the helmsman to put the helm
Luff ALEE, } down to the *lee* side.

Helms ALEE, an order to the crew to cause the head-sails to shake in the wind, the more readily to bring the ship about.

ALL *in the wind*, the state of a ship's sails when they are parallel to the direction of the wind, so as to shake or shiver.

ALL's *well*, an acclamation of safety used by each centinel every half hour (when the bell is struck) during the night watches.

ALL *hands hoay*, the order by which all the ship's company are summoned upon deck.

ALL *hands to quarters hoay*, the order for the crew to repair to their respective stations for battle.

ALLOWANCE, the quantity of victuals and drink allotted to each person on board.

Short ALLOWANCE,
Two-thirds ALLOWANCE,
To stop the ALLOWANCE,
} all refer to the preceding.

ALOFT, up in the tops at the mast-heads, or any where about the higher yards or rigging.

ALONG-*side*, side by side, or parallel to a ship, wharf, &c.

To lay ALONG-*side*, to place a ship by the side of another.

ALONG-*shore*, along the coast; applied to coasting navigation, or to a course which is in sight of the shore, and nearly parallel thereto.

Lying ALONG, the state of being pressed down sideways by a weight of sail.

ALOOF, at a distance. See LUFF.

ALTITUDE, height.

Meridian ALTITUDE, is an arch of the meridian, measured from the horizon to any celestial object then upon the meridian.

AMAIN, at once, suddenly; as, let go *amain*. This phrase is generally applied to a tackle-fall.

AMIDSHIPS, the middle of the ship, either with regard to her length or breadth; as, the enemy boarded us *amidships*, that is, in the middle, between the stem and stern. Put the helm *amidships*, that is, in the middle, between the two sides.

AMPLITUDE, in Gunnery, is the range of the shot, or the horizontal right line which measures the distance it has moved.

AMPLITUDE, in Astronomy, is an arch of the horizon intercepted between the true east or west point, and the center of the sun, or a star, at its rising or setting. It is of use in navigation to find the variation of the compass or magnetic needle.

Magnetical AMPLITUDE, is an arch of the horizon contained between the sun or a star at its rising or setting, and the magnetical east or west point of the horizon pointed out by the compass; the difference between this and the *true* AMPLITUDE in the preceding article, is the *variation* of the compass.

ANCHOR, an instrument of iron, dropped from a ship into the ground, to retain her in a proper situation. Fig. 18. pl. 1.

The parts of an Anchor:—

The shank	A
The eye	B
The ring	C
The nuts	D
The crown	E
The arms	F
The palms	G
The flukes	H
The bill	I
The stock	K

The ANCHOR *comes home*, implies that the anchor is dislodged from its bed in the ground by the violence of the wind, sea, or current, or all united.

To drag the ANCHORS, implies the effort of making the anchor *come home*, so as to drag it along the ground.

Foul ANCHOR, is so called when it either hooks some other anchor, wreck, or cable under the water, or when by any accident the ship entangles her slack cable about the stock or upper fluke of it.

The ANCHOR *is a cock bill*, implies that the anchor is suspended perpendicularly from the cat-head, ready to be let go at a moment's warning.

The ANCHOR *is a-peek*, the cable has been drawn in so tight as to bring the ship directly over it.

The

The ANCHOR *is a-trip*, or *a-weigh*, the state of the anchor when it is just drawn out of the ground, in a perpendicular direction, either by the cable or the buoy-rope.

To ANCHOR, or *cast* ANCHOR, to let go the anchor, that the ship may ride thereby.

At ANCHOR, the situation of a ship which rides by her anchor.

To back an ANCHOR, to lay down a small anchor ahead of the large one by which the ship rides, the cable of the former being fastened to the crown of the latter, in order to prevent its coming home.

To cat the ANCHOR. See CAT.

To fish the ANCHOR. See FISH.

To sheer the Ship to her ANCHOR, is to steer the ship's head to the place where the anchor lies when they are heaving the cable into the ship.

To shoe the ANCHOR. See SHOE.

To weigh the ANCHOR, to heave the anchor out of the ground by its cable.

To weigh the ANCHOR *by the long boat*, is performed by applying mechanical powers, fixed in the boat, to the buoy rope instead of the cable, and thereby pulling it up to the boat.

ANCHORAGE, or ANCHOR-GROUND, is a bottom which is neither too deep, too shallow, nor rocky.

The several ANCHORS are named,

The Sheet ANCHOR,
The Best Bower ANCHOR,
The Small Bower ANCHOR,
The Spare ANCHOR,
} all of which are nearly of equal weights.

The Stream ANCHOR, is less than any of the preceding; and

The Kedge ANCHOR, which is the smallest of all.

With respect to the situation when in the ground, they are sometimes denominated

The Flood ANCHOR, or that by which the ship rides during the flood tide;

The Ebb ANCHOR, or that by which she rides during the ebb tide;

The

The Sea ANCHOR, is that which lies towards the *offing*; *The Shore* ANCHOR, that which is between the ship and the shore.

AN-END, the situation of any mast when in a perpendicular situation to the plane of the deck. The topmasts are also said to be *an-end* when they are hoisted up to their usual station at the head of the lower masts.

ANGLE, is the opening or mutual inclination of two lines, or two planes, meeting in a point called the angular point, and is measured by comparing that opening to the whole circumference of a circle, e. g. the horizon supposed to be divided into 360 equal parts called degrees, of which the angle is said to contain so many.

APEEK, perpendicular. See ANCHOR'S APEEK.

APRON, a square piece of sheet-lead tied over the touch-hole of the cannon, to keep the charge dry at sea, or in rainy weather.

APRON *of a dock*, the platform on which the dock-gates are shut.

APRON *in ship-building*, a piece of curved timber just above the foremost end of the keel.

Naval ARCHITECTURE, or ship building, comprehends the theory of delineating marine vessels upon a plane, and the art of framing them upon the stocks according to the proportions exhibited in a regular design, and may be distinguished into three principal parts.

1st, To give the ship such an exterior form as may be most suitable to the service for which she is designed.

2d, To give the various pieces of a ship their proper figures, and to unite them into a firm and compact frame.

3d, To provide convenient accommodations for the officers and crew, as well as suitable apartments for the cargo, furniture, provision, artillery, ammunition, &c.

With respect to the first article, it may be necessary to remark that a ship of war should be able to sail swiftly, and carry her lower tier of guns sufficiently out of the water; a merchant ship ought to contain a large cargo of merchant goods, and be navigable with few hands; and

and both should be able to carry sail firmly, steer well, drive little to leeward, and sustain the shocks of the sea without being violently strained.

ARMED *Ship*, a vessel occasionally taken into the service of the government in time of war, and employed to guard some particular coast, or attend on a fleet, and are upon the establishment of king's sloops.

Top ARMOUR. See TOP.

ARMOURER, an officer appointed by warrant to clean and keep in repair the muskets, pistols, cutlasses, &c. of a ship of war; having a mate to assist him in those duties.

ASHORE, on the shore, or land, as opposed to *aboard*. A ship is said to be ASHORE when she has run upon the ground, either by design or accident.

ASTERN, any distance behind a ship as opposed to *ahead*, which is before her.

ATHWART, across the line of the ship's course; as, we discovered a fleet standing *athwart* us, i. e, steering across our way.

ATHWART *hawse*, the situation of a ship when she is driven by any accident across the stem of another, whether they bear against, or are at a small distance from, each other; the transverse position being principally understood.

ATHWART *the fore foot* is generally applied to the flight of a cannon ball, as fired by one ship across the line of another's course, but ahead of her, as a signal for the latter to *bring to*.

ATHWART *ships*, reaching across the ship from one side to the other, or in that direction.

ATLAS, a large book containing maps and charts of the principal coasts, harbours, &c.

ATRIP is applied differently to the anchor and the sails; for the first, see ANCHOR. The top-sails are said to be *atrip* when they are hoisted up to the mast-head, or to their utmost extent.

AVAST, the order to stop or pause in any exercise, as *avast heaving*, i. e. stop the drawing in the cable or hawser, by means of the capstern, &c.

AVERAGE, in commerce, the accidents and misfortunes which happen to ships and their cargoes, from the time of their loading till their unlading, and is divided into three kinds: 1st, Simple, or particular *average*; 2d, large and common *average*; and 3d, the small *averages*.

AVERAGE also signifies a small duty which merchants pay to the master of a vessel for his care of their goods, over and above the freight.

AWEIGH, is synonimous to atrip, when applied to the anchor.

AWEATHER, the situation of the helm when pushed to the *weather* side of the ship, in contradistinction to *alee*.

AWNING, a canopy of canvas extending over the decks of a ship, or over a boat, in hot weather, to protect the officers and crew, and preserve the decks from the heat of the sun. That part of the *poop deck* which is continued forward beyong the bulk-head of the cabin, is also called the *awning*.

AZIMUTH *compass*, an instrument employed to discover the magnetic azimuth or amplitude of any heavenly object, and thereby to find the exact variation of the magnetic needle. It is also used to take the bearings of headlands, ships, and other objects at a distance.

The *azimuth compass* differs from the *common sea compass* in this—that the circumference of the card, or box, is divided into degrees, and there is fitted to the box an index (O, fig. 20, pl. 1.) with two sights, M N, which are upright pieces of brass placed diametrically opposite to each other, having a slit down the middle of them, through which the sun, or star, or other object is to be viewed, at the time of observation.

AZIMUTH *of the sun, or a star*, is an arch of the horizon, intercepted between the meridian of the place and the azimuth,

azimuth, or vertical circle passing through the sun or star.

Magnetical AZIMUTH, an arch of the horizon contained between the *magnetical* meridian and the *azimuth* or vertical circle of the object, or its apparent distance from the N. or S. points of the compass.

B.

BACK *of the Post.* See STERN POST.

To BACK *an Anchor.* See ANCHOR.

To BACK *astern*, in rowing, is to manage the oars in a direction contrary to the usual method, so as that the vessel impressed by their force shall retreat or move with her stern foremost.

BACK *the starboard oars*, the command to confine the above management to the oars on the right-hand side of the boat only, in order to turn her round more speedily to that direction.

To BACK *the sails*, to arrange them in a situation that will occasion the ship to retreat or move astern.

To BACK *and fill*, an operation most usually performed in narrow rivers, when a ship has the tide in her favour and the wind is against her. See FILL.

BACK *the Main-top-sail*, a command to brace that sail so as that the wind may exert its force against the fore part of the sail, and by thus laying it aback, or against the mast, greatly retard the ship's course.

BACK-BOARD, a piece of board placed transversely in the after part of a boat, for the passengers to recline against whilst sitting in the *stern sheets*.

BACK-STAFF, an instrument formerly used for taking the sun's altitude at sea, being so called because the back of the observer is turned towards the sun during

the observation; it was also called DAVIS's QUADRANT, from its inventor, who produced it about 1590.

BACK-STAYS, long ropes extending from the top-mast heads to both sides of the ship, where they are extended to the channels, as *t*, fig. 66, pl. 6. Their use is to second the efforts of the shrouds in supporting the mast when strained by a weight of sail. They are usually distinguished into breast back-stays, after back-stays, and shifting back-stays; the first being intended to sustain the mast when the ship sails upon a wind; or, in other terms, when the wind acts upon a ship sideways; the second is to enable her to carry sail when the wind is further aft; and the third kind take their name from being shifted, or changed, from one side to the other, as occasion requires. See TRAVELLING. There are also *back-stays* to the top-gallant-masts, as, *v*, fig. 66. pl. 6.

BADGE, a sort of ornament placed on the out-side of small ships, very near the stern, containing either a window or the representation of one. See QUARTER.

BAFFLING, is spoken of the wind, when it frequently shifts from one point to another.

To BAGPIPE *the mizen*, is to lay it aback, by bringing the sheet to the mizen shrouds.

BAG-REEF, a fourth, or lower reef; often used in the royal navy.

To BALE *a boat*, is, to throw the water out of her, which has got in by leakage or otherwise.

To BALANCE, to contract a sail into a narrower compass, and is peculiar to the *mizen* of a ship, and the *main-sail* of those vessels wherein it is extended by a *boom*. The operation of *balancing* the mizen is performed by lowering the yard or gaff a little, then rolling up a small portion of the sail, at the peek or upper corner, and lashing it about one-fifth down towards the mast. See MIZEN.

A boom main-sail is *balanced*, by rolling up a portion of the clue, or lower aftermost corner, and fastening it strongly

strongly to the boom. N. B. It is requisite in both cases to wrap a piece of old canvas round the sail under the lashing, to prevent its being fretted by the latter.

BALANCE REEF, a reef band that crosses a sail diagonally, and is used to contract it in a storm.

BALLAST, a certain portion of stone, iron, gravel, or such like materials, deposited in a ship's hold, when she has either no cargo, or too little to bring her sufficiently low in the water, and is used to counterbalance the effort of the wind upon the masts, and give the ship a proper stability, that she may be enabled to carry sail without danger of overturning. The art of *ballasting* consists in placing the center of gravity, so as neither to be too high, nor too low, too far forward, nor too far aft, and that the surface of the water may nearly rise to the extreme breadth amidships, and thus the ship will be enabled to carry a good sail, incline but little, and ply well to windward. See TRIM.

Shingle BALLAST, ballast of coarse gravel.

BANDS, slips of canvas strongly sewed across a sail to strengthen it, as the REEF-BANDS, &c.

BANIAN-*days*, denotes those three days in the week, on which the sailors have no flesh meat served out to them.

BANK, an elevation of the bottom of the sea; some of which are so high, as to prevent a ship floating over them, and in this sense, amount to nearly the same as *shallows*, *flats*, &c. The shelves that abound with rocks under water, are distinguished by other names, as *reefs*, *ridges*, *keys*, &c.

BANKS on the sea-coast are usually marked by beacons, or buoys, and in charts are distinguished by little dots, as ridges of rocks are by crosses.

BANK *of oars*, a seat, or bench, of rowers in a *galley*.

BANKER, a vessel employed in the cod fishery on the *Banks* of Newfoundland.

BAR of a port or harbor, a shoal or bank of sand, gravel, &c. thrown up by the sea to the mouth of a

river or harbor, so as to endanger, and sometimes totally prevent the navigation into it.

Hatch-BARS, bars to lock over the hatches for security from theft, &c.

Capstern-BARS, large thick bars put into the holes in the drum-head of the capstern, by which it is turned round. See CAPSTERN.

BARCA-LONGA, a large Spanish boat navigated with lugsails, and having two or three masts.

Under BARE-POLES, having no sails set when out at sea.

BARGE, a vessel or boat of state; those employed in the navy are for the use of the admirals and captains. See BOAT.

BARGE is also the name of a flat bottomed vessel of burthen, for lading and unloading ships.

BARK, a general name given to small ships; it is, however, peculiarly appropriated by seamen to those which carry three masts without a mizen topsail; our mariners in the coal trade, apply this distinction to a broad-sterned ship without a figure head.

BARNACLES, a species of shell-fish, often found sticking to the bottoms of ships, rocks, &c.

BARRICADE, a strong wooden rail, extending as a fence across the foremost part of the quarter-deck, on the top of which some of the seamen's hammocks are usually stowed in time of battle.

BASIN, a place where the water is confined by double flood-gates, and thereby prevented from running out at the tide of ebb. It also implies some part of a haven, which opens from a narrow channel into a spacious receptacle for shipping.

BATTENS *of the hatches*, a sort of long narrow laths, or streightened hoops of casks, serving by the help of nailing to confine the edges of the *tarpaulings* close down to the sides of the *hatchways*, to prevent the water from penetrating to the lower apartments of a ship in a storm.

BATTERY, a parapet or wall of earth, faggots, &c. thrown

thrown up to cover the men employed about the guns from the enemy's shot.

BAY, an inlet of the sea between two capes or headlands.

BAY, in large ships of war, is that part on each side between decks, which lies before the *bitts*.

BEACH, the sea shore, or margin of the sea.

BEACON, a post, or stake, erected over a shoal, or sand-bank, as a warning to seamen to keep at a distance; also, a signal placed on the top of hills, &c.

BEAK-HEAD, a name given to the fore part of ships, whose forecastle is square, or oblong; a circumstance common to all vessels of war which have two or more tiers of guns.

BEAMS, strong thick pieces of timber, stretching across the ship from side to side, to support the decks, and retain the sides at their proper distance, with which they are firmly connected by means of strong *knees*, and sometimes of *standards*.

Midship BEAM, the longest beam in a ship, being lodged in the midship *frame*, or between the widest frame of timbers.

Orlop BEAMS, those which support the orlop deck, but are chiefly intended to fortify the hold.

On the BEAM, implies any distance from a ship on a line with the beams, or at right angles with the keel.

Before the BEAM, is an arch of the horizon, comprehended between a line that crosses her length at right angles, and some object at a distance before it; or between the line of the beam and that point of the compass which she stems.

Abaft the BEAM. See ABAFT.

BEAM *ends*, a ship is said to be on her beam ends, when she inclines very much on one side, so that her beams approach to a vertical position; hence also a person lying down is said to be on his beam ends.

BEAN-COD, a small fishing vessel, or pilot boat, common on the sea coasts, and in the rivers of Portugal. It is extremely sharp forward, having its stem bent in-

ward above in a considerable curve, and is commonly navigated with a large lateen sail, which extends the whole length of the deck, and sometimes of an out-rigger over the stern, and is accordingly well fitted to ply to windward.

To BEAR, is used in the following different phrases:—

The Land's end *bore* E.N.E. *i. e.* it was seen from the ship in a line with the E.N.E. point of the compass.

We *bore* down upon the enemy; *i. e.* having the advantage of the wind, or being to windward, we approached the enemy by sailing *large*, or from the wind.

She *bears* in with the land, is said of a ship when she runs towards the land.

We *bore* off the land; we increased our distance from the land.

To BEAR *off*, also implies to keep any weight, which is being hoisted up, clear from rubbing against the sides, &c. as *bear off* the boat.

BEAR *ahand*, implies make haste, dispatch, quick, &c.

To BEAR *up*, or *away*, is to change the course of a ship, in order to make her run before the wind after she had sailed some time with a side wind, or *close hauled*; and seems to have been derived from the motion of the helm, by which this is partly produced, as the helm is then *borne up* to the windward, or weather side of the ship: Thus, supposing the wind to blow in the direction A to B, fig. 30, pl. 2, the ship C is said to bear away, when she assumes the courses D or E.

BEARING, an arch of the horizon, intercepted between the nearest meridian, and any distant object, either discovered by the eye, and referred to a point on the compass; or resulting from sinical proportion.

BEARING, is also the situation of any distant object, estimated with regard to the ship's position. In this sense, an object is said to be a head, as at A, fig. 29, pl. 2; astern, as at B; on the beam, as at C; on the bow, as between A and E; on the quarter, as between B and F; before the beam, as between C and E; abaft the beam, as between C and F; or if a

ship

ship sails with a side wind, a distant object is said to be to leeward, or to windward, on the lee quarter or bow, or on the weather quarter or bow.

BEATING, the operation of making a progress at sea against the direction of the wind, in a zig-zag line or traverse. See TACKING.

To BECALM, to intercept the current of the wind in its passage to a ship, by means of any contiguous object; as a high shore, some other ship to windward, &c. At this time the sails remain in a state of rest, and are consequently deprived of their power to govern the motion of the ship.

BECALMED implies also, that from the weather being calm, and no wind blowing, the sails hang loose against the mast.

BECKETS, any thing used to confine loose ropes, tackles, or spars in a convenient place; hence beckets are either large hooks; or short pieces of rope with a knot on one end and an eye in the other; or formed like a circular wreath; or they are wooden brackets.

Put the tacks and sheets in the BECKETS, the order to hang up the *weather* main and fore sheet, and the *lee* main and fore tack, to the small knot and eye *becket* on the foremost main and fore shrouds, when the ship is close hauled, to prevent them from hanging in the water.

BED a flat thick piece of timber, lodged under the quarters of casks containing any liquid, and stowed in a ship's hold. See STOWING.

BED *of a river*, the bottom of a channel in which the stream usually flows.

BED *of a cannon*. See CARRIAGE.

BELAY, to fasten a rope by winding it several times round a cleat, belaying pin, or kevel; this term is chiefly applied to the running rigging, there being several other expressions used for large ropes, as, *bitting*, *making fast*, *stopping*, &c. See those articles.

BELFRY, the shelter under which the ship's bell is suspended.

Strike the BELL, the order to strike the clapper against the bell as many times as there are half hours of the watch elapsed; hence we say it is two bells, three bells, &c. meaning there are two or three half hours passed.

BEND, that part of one rope which is fastened to another, or to an anchor, &c. hence

To BEND is to fasten one rope to another, or to an anchor.

Carrick BEND. See pl. 8. 104.

Fisherman's BEND, pl. 8, 105.

Sheet BEND end *stopped*, pl. 8, 106, &c. &c.

BENDING *the cable*, the operation of *clinching*, or tying the cable to the ring of its anchor.

BENDING *a sail*, fastening it to its yard or stay. See STAY, SAIL, and YARD.

BENDS, the thickest and strongest planks in a ship's side. See WALES, by which name they are more properly called.

BETWEEN DECKS, the space contained between any two *whole* decks of a ship.

BEVELLING, in ship building, the art of hewing a timber with a proper and regular curve, according to a mould which is laid on one of its surfaces.

BIGHT, the double part of a rope when it is folded, in contradistinction to the end; as, her anchor hooked the *bight* of our cable; *i. e.* caught any part of it between the ends: The *bight* of his cable has swept our anchor; *i. e.* the double part of the cable of another ship as she ranged about, has entangled itself about our anchor.

BIGHT, is also a small bay between two points of land.

BILANDER, a small merchant vessel with two masts, and is particularly distinguished from other vessels of two masts by the form of her main-sail, which is bent to the whole length of a yard hanging fore and aft, and inclined to the horizon in an angle about 45 degrees; the foremost lower corner called the *tack*, being secured to a ring-bolt in the deck, and the aftermost, or *sheet* to the

the *taffarel*. Few vessels, however, are now rigged in this method.

BILBOES, long bars or bolts of iron with shackles sliding on them, and a lock at the end, used to confine the feet of prisoners in a manner similar to the confinement of the hands in handcuffs.

BILGE, that part of a floor in a ship which approaches nearer to an horizontal, than to a perpendicular direction, and on which the ship would rest if laid on the ground: hence, when a ship receives a fracture in this place, she is said to be *bilged*. BILGE, is also the largest circumference of a cask, or that which extends round by the bung-hole.

BILGE-*water*, the rain or sea-water which occasionally enters the lower apartments of a ship, whence running down to the floor, it remains in the *bilge* of the ship till pumped out, and is always (if the ship does not leak) of a dirty colour, and disagreeable smell.

BILL, the point or extremity of the fluke of an anchor. See ANCHOR.

BILL also denotes a point of land.

BILL *of lading*, an acknowledgment signed by the master of the ship and given to a merchant, containing an account of the goods, which the former has received from the latter, with a promise to deliver them at the intended place for a certain sum of money, and is only used when the goods sent on board are but a part of the cargo; for when a merchant loads a vessel entirely on his own account, the deed passed between him, and the master of the vessel, is called a *charter-party*.

BINACLE, (anciently BITTACLE) fig. 52, pl. 3, a wooden case or box which contains the compasses, a, and b; and lights, at c, to shew the compass at night; there are usually two binacles on the deck of a ship of war, one being designed for the man who steers, and the other for the person who superintends and directs the steerage, whose office is called *conning*.

BIRTH,

BIRTH, the station in which a ship rides at anchor either alone or in a fleet; as, she lies in a good birth, *i. e.* in good anchoring ground, well sheltered from the wind and sea, and at a proper distance from the shore and other vessels.

BIRTH, also signifies the room or apartment where any number of the officers or ship's company, *mess* and reside.

To BIRTH *a ship's company*, to allot to each man the space in which his hammock is to be hung.

To BITE, to hold fast in the ground: said of the anchor.

BITTS, a frame composed of two strong pieces of timber, fixed perpendicularly in the fore part of a ship, whereon to fasten the cables as she rides at anchor; in ships of war, there are usually two pair of cable bitts, and when they are both used at once, the cable is said to be *double bitted*. There are several other smaller bits; as, the *topsail-sheet bitts*, *Paul bitts*, *carrick bitts*, &c.

To BITT *the cable*, is to put it round the bitts, in order to fasten it or slacken it out gradually, which last is called *veering away*.

BITTER, the turn of the cable which is round the bitts.

BITTER *end*, that part of the cable which is abaft the bitts, and therefore within board when the ship rides at anchor.

BLACK-STRAKES, a range of planks immediately above the wales in a ship's side; they are always covered with a mixture of tar and lamp-black, which not only preserves them from the heat of the sun and weather, but forms an agreeable variety with the painted or varnished parts above them.

BLADE. See OAR.

BLINK OF THE ICE, that dazzling whiteness about the horizon which is occasioned by the reflection of light from fields of ice.

BLOCK, (in mechanics, termed a pulley,) is used for various purposes in a ship, either to encrease the mechanical

nical power of the ropes, or to arrange the ends of them in certain places on the deck, that they may be readily found when wanted; they are consequently of various sizes and powers, and obtain various names according to their form or situation: thus—

A single BLOCK contains only one sheave or wheel, as *a*, fig. 40, pl. 2.

A double BLOCK has two sheaves, as *c*, fig. 40, pl. 2.

A long tackle BLOCK has two sheaves, one below the other, as *b*, fig. 40, pl. 2.

A snatch BLOCK, is a single block with an opening on one side, in which the bite of a rope may be laid instead of reeving the end through, which, in some circumstances, would be very inconvenient. See *k*, fig. 40, pl. 2.

Spring BLOCK, an invention of Mr. Hopkinson, of Philadelphia, calculated to assist a vessel in sailing, and particularly intended by him to be applied to the sheets and the dead-eyes; it is composed of a common block or dead-eye, attached to a spiral spring of well tempered steel, within the cavity of which is a chain of suitable strength, called a *check-chain*; when the spring is not in action, this chain is slack; but, when the spring is extended by the force of the wind as far as it may be without injury, the check-chain begins to bear, and prevents its farther extension.

Top BLOCK, is a large single block with an iron strop and hook, by which it is hung to an eye-bolt in the cap, and is used to sway up or lower down the top-masts. See *i*, fig. 40, pl.

Jeer BLOCKS, are twofold or threefold blocks, applied to hoist or lower the main and fore-yards, as *e* and *f*, fig. 41.

Viol BLOCK, or *Voyal* BLOCK, *k*. fig. 40, a large block through which the *voyal* or *messenger* passes when the anchor is weighed by the *fore* or *jear* capstern.

Clue-garnet and *Clue-line* BLOCKS are distinguished from others by having shoulders upon their upper parts, through which the strop is laid, and is applied to draw up the *clues* or lower corners of the square sails to their respective yards, (*l*, fig. 40.)

Cat BLOCK, (fig. 15, pl. 1.) is a two or threefold block, with an iron strop and large hook to it, and is employed to draw the anchor up to the *cathead*. See CAT.

Every BLOCK is composed of three, and generally four, parts; the *shell*, or outside wooden part, *n*, fig. 91, pl. 7.

The *sheave*, or wheel, on which the rope runs, *p*.

The *pin*, or axle, on which the sheave turns, *o*; and

The *strop*, or part by which the block is made fast to any particular station, and is usually made either of rope, as fig. 37 and 38, or of iron, as fig. 15 and 41.

Iron strapp'd BLOCKS frequently have the hook working in a swivel, as *f*, fig. 41, in order to turn it, that the several parts of the rope of which the tackle is composed, may not be twisted round each other, which would greatly diminish the mechanical power.

BLOCK and BLOCK, is the situation of a tackle when the *blocks* are drawn close together.

BLUFF, an high land projecting almost perpendicularly into the sea.

BLUFF *bow*, a vessel is said to be *bluff-bowed* that has broad and flat bows.

BLUFF-*headed*, implies, the having an upright stem.

BOARD, the space comprehended between any two places where the ship changes her course by *tacking*; or, it is the line over which she runs between *tack and tack* when turning to windward, or sailing against the direction of the wind.

To make a good BOARD, to sail in a straight line when *close hauled*, without deviating to *leeward*.

To make short BOARDS, is to tack frequently before the ship has run any great length.

To make a stern BOARD, is when by a current, or any other accident, the vessel has fallen back from the point she had gained on the last tack, instead of having advanced beyond it.

BOARD and BOARD, is when two ships comes so near as to touch each other, or to lie side by side.

BOARDERS,

BOARDERS, sailors appointed to make an attack by boarding, or to repel such attempt from the enemy.

BOARDING, an assault made by one vessel on another, by entering her in battle with a detachment of armed men, and is chiefly practised by privateers upon merchant ships, who are not so well provided with men

BOATS, small open vessels, conducted on the water by rowing or sailing, and are distinguished by different names according to their size and construction.

The long BOAT, is usually the largest boat that accompanies a ship, is generally furnished with a mast and sails, and may be armed and equipped for cruizing short distances; her principal employ however, is, to bring heavy stores or provisions on board, and also to go up small rivers to fetch water, wood, &c.

The launch, is a boat, which has greatly superseded the use of the long-boat; it is longer, more flat-bottomed, and by rowing a greater number of oars, is better adapted for going up narrow and shallow rivers.

The barge, is a long, narrow, and light boat, employed to carry the principal officers, as admirals and captains of ships of war, and is very unfit for sea.

A pinnace, resembles a barge, but is smaller, never rowing more than eight oars, whereas, a barge never rows less than ten; the pinnace is for the accommodation of the lieutenants, &c.

The cutters of a ship are broader, deeper, and shorter than the barge or pinnace, are fitter for sailing, and commonly employed in carrying light stores, passengers, &c. to and from the ship: they are built differently from the former boats; the lower edge of every plank overlaying the upper edge of the plank below it, which is called *clinch work*. They generally row six oars, sometimes eight or twelve, and sometimes only four, which last, is termed a *jolly-boat*.

Yawls, resemble pinnaces, but are generally rowed with six oars.

A wherry, is a sharp light boat, used in rivers or harbors.

A Moses,

A Moses, is a flat bottomed boat used in the West-Indies, for bringing off hogsheads of sugar, and is termed *single* or *double*, according to its size.

A punt, is a sort of oblong flat bottomed boat, nearly resembling a floating stage.

A felucca, is a large and strong passage boat, used in the Mediterranean, having from ten to sixteen banks of oars.

Trim the BOAT, the order to sit in the boat, in such a manner as that she shall float upright in the water without leaning to either side.

To bale the BOAT, is to throw out any water which may be in her bottom.

To moor the BOAT, to fasten her with two ropes, so as that the one shall counteract the other, and keep her in a steady position.

BOAT's *crew*, the men appointed to conduct any particular boat, as the *barge's crew, cutter's crew*, &c.

BOAT-HOOK, an iron hook with a sharp point on the hinder part thereof; it is fixed upon a long pole, by the help of which, a boat is either pulled to or pushed off from any place.

BOATSWAIN, the officer who has the boats, sails, rigging, colours, anchors, cables, and cordage, commited to his charge.

BOBSTAYS, ropes used to confine the bowsprit of a ship downward to the stem or cutwater.

BOLD SHORE, signifies a coast so steep and abrupt, as to admit the approach of shipping without exposing them to the danger of being run aground.

BOLLARD *timbers*, the same as KNIGHTHEADS, which see.

BOLLOCK-BLOCKS, are blocks secured on the middle of the topsail yards, and receive the topsail ties through them, in order to encrease the mechanical power used in hoisting them up.

BOLSTERS, small cushions or bags filled with tarred canvas, used to preserve the *stays* from being chafed or worn by the motion of the masts, as the ship pitches at sea.

BOLT, a cylindrical pin of iron driven into the sides and decks, of which there are various sorts; as *rag bolts, fender bolts, eye bolts, ring bolts, chain bolts, forelock bolts*, &c. See pl. 1, fig. 1, 2, 3, 4, and pl. 2. 39.

BOLT *rope*, a rope to which the edges or skirts of the sails are sewed to strengthen, and prevent them from rending; that part of it which is on the perpendicular parts of the sail, is called the *leech-rope*, that at the bottom, the *foot-rope*, and that at the top, the *head-rope*.

BOMB. See MORTAR and SHELL.

BOMB *vessel*, a small vessel particularly calculated to throw bombs into a fortress, being built remarkably strong, in order to sustain the violent shocks produced by the discharge of their *mortars*. They are generally rigged as *ketches*.

BONNET, an additional part laced to the foot of the sails in small vessels, in moderate winds.

BOOM, in marine fortification, a strong iron chain, fastened to a number of *spars*, and extending athwart the mouth of a harbour or river, to prevent the enemy's vessels from entering, but may be occasionally sunk or removed.

BOOM, a long pole run out from different places in the ship, to extend the bottoms of particular sails, as *jib-boom, flying jib-boom, studding-sail-booms, driver* or *spanker-boom, ring-tail-boom, main-boom, square-sail-boom*, &c.

Fire Booms, strong poles occasionally thrust out from a ship's side, &c. to prevent the approach of fire-ships, fire-stages, or vessels accidentally on fire.

BOOM-IRONS, nearly resemble the figure 8. and are employed to connect the studding-sail booms to their respective yards, &c. See fig. 5, pl. 1, the one circle or rim being driven firmly on the yard-arm, and the boom sliding in the other. See *s s*, fig. 63, pl. 4.

The BOOMS, implies a space where the spare booms and topmasts are stowed, their ends being supported by the *gallows*, and affording a receptacle for the barge between them.

BOOT-TOPPING, the operation of scraping off the grass, slime, shells, &c. which adhere to the bottom,

near the surface of the water, and daubing it over with a mixture of tallow, sulphur, and rosin.

BORE. See CANNON.

BOTH SHEETS AFT, the situation of a ship that sails right before the wind, or with the wind right astern.

BOTTOM, is used to denote either the bottom of a ship, or that of the water; thus, in the former sense, we say a clean or a foul bottom, a British, French, or Dutch bottom; and in the latter sense, a clayey, rocky, muddy, sandy, stony, or coral bottom.

BOTTOMRY, a contract for borrowing money on the keel or bottom of the ship, whereby the commander binds the ship herself, that if the money be not paid at the time appointed, the creditors shall have the ship.

BOTTOMRY, is also the lending of money to be paid only on the return of the ship; the interest is therefore much greater than the law commonly allows, because, if the ship perishes, the lender loses the whole of the debt.

BOUND, is used in the following terms: *wind-bound*, prevented from sailing on account of the wind being contrary: *ice-bound*, totally surrounded with ice, so as to be incapable of advancing: Where are you *bound to*? *i. e.* to what place are you going?

BOW, the rounding part of a ship's side forward, beginning where the planks arch inwards, and terminating where they close, at the stem or prow.

On the Bow, an arch of the horizon, (not exceeding 45 degrees,) comprehended between some distant object, and that point of the compass which is right a head. See BEARING.

BOWER. See ANCHOR.

BOWGRACE, a kind of fenders of old junk, laid round the bows and sides of a ship to prevent her receiving injury from floating ice.

BOWLINE, a rope fastened near the middle of the *leech*, or perpendicular edge of the square sails, by three or four subordinate parts, called *bridles*; it is used to keep

keep the weather-edge of the sail tight forward and steady when the ship is close hauled to the wind.

To check a BOWLINE, is to slacken it when the wind becomes large or free.

BOWMAN, the man who rows the foremost oar in a boat.

To BOWSE, to pull upon any body with a tackle, or complication of pullies, in order to remove it, &c. Pronounced *bowze*.

BOWSPRIT, a large boom or mast, which projects over the stem, to carry sail forward, and counteract the force of the after-sails, or those extended behind.

BOXES *of* the pump. See PUMP.

BOXHAULING, a method of *veering* a ship when the swell of the sea renders *tacking* impracticable; this is generally performed when the ship is so near the shore, as not to have room for veering in the usual manner.

BOXING-OFF, is performed by laying the head-sails aback, to throw the ship's head into the line of her course, after she had inclined to windward of it by the neglect of the helmsman, or otherwise.

BRACE, a rope employed to wheel or traverse the sails upon the mast in a direction with the horizon, for which purpose they are fastened to the extremities of the yards, *p*, *q*, fig. 63, pl. 4.

BRACE, is also a name given to pieces of iron placed as supports to various machines in a ship, such as the poop lanterns, &c. &c.

To BRACE *about*, is to turn the yards round for the contrary tack.

To BRACE *sharp*, to cause the yards to have the smallest possible angle with the keel; for the ship to have headway.

To BRACE *to*, is to check or ease off the lee braces, and round in the weather ones, to assist in the manœuvre of tacking.

BRACKETS, short crooked timbers resembling knees.

BRAILS, ropes passing through pullies on the mizen-mast and yard, and fastened to the aftermost leech of

the sail, in different places, to truss it close up, as occasion requires. Several of the stay-sails also have *brails*.

BRAILS is likewise a general name given to all the ropes employed to haul up the bottoms, lower corners, and skirts of the other great sails, for the more ready furling them, which operation is called *brailing up*, or hauling up in the brails.

BRAKE the handle or lever by which a common ship pump is usually worked.

BREADTH, the measure of a ship from side to side, in any particular place.

Main BREADTH, is that part of every timber which incloses the greatest space from the middle line of the ship's length.

Top-timber BREADTH, is the distance between the upper part of the same timber and the middle line.

Extreme BREADTH, is the distance between her sides at the midship frame.

BREAD, is the usual name given to biscuits.

BREAK *of a deck*, is that part where it terminates, and the descent on to the next deck below it commences.

To BREAK-BULK, to begin to unload a ship.

To BREAK-SHEER; when a ship at anchor is laid in a proper position to keep clear of her anchor, but is forced by the wind or current out of that position, she is said to *break her sheer*.

BREAKERS, a name given by sailors to those rocks which lie so near the surface of the sea as to occasion the waves to break over them in a perpetual foam, and produce a hoarse and terrible roaring.

To BREAK-UP, to take a ship to pieces when she becomes old and unserviceable.

BREAK-WATER, the hull of an old ship sunk at the entrance of a small harbour, to break off or diminish the force of the waves as they advance towards the vessels moored within.

BREAK-

BREAK-WATER, is also a sort of small buoy fastened to a large one; when the buoy-rope of the latter is not long enough to reach to the surface of the water; and thereby to shew where the large buoy swims.

BREAMING, burning off the filth, such as grass, ooze, shells, or sea-weed, from the ship's bottom, which it has contracted by lying long in harbour; it is performed by holding kindled furze, faggots, or reeds, to the bottom, which, by melting the pitch that formerly covered it, loosens whatever filth may have adhered to the planks; the bottom is then covered anew with a composition of sulphur, tallow, &c. This operation may be performed either by laying the ship aground, by DOCKING, or by CAREENING, which see.

BREASTFAST, a large rope, employed to confine a ship *sideways* to a wharf or key.

BREAST-HOOKS, thick pieces of timber placed directly across the stem, to strengthen the fore part of the ship and unite the bows on each side.

BREAST-WORK, a sort of balustrade of rails or mouldings, which terminates the quarter-deck and poop at the fore ends, and also encloses the fore-castle both before and behind.

BREECHING, a strong rope, used to secure the cannon, and prevent them from recoiling too much in the time of battle; it is fixed by reeving it through a thimble stropped upon the cascabel or pummelion of the gun, and the two ends are then clinched on each side of the port, to ring-bolts in the ship's side. The *breeching* is of sufficient length to let the muzzle of the cannon come within the ship's side to be charged or to be housed.

BREWING, the appearance of a collection of black and tempestuous clouds, arising gradually from a particular part of the hemisphere, as the forerunner of a storm.

BRIDLES, the upper part of the moorings, laid in the King's harbours, to ride ships or vessels of war. See MOORINGS.

Bowline BRIDLES, short legs, or pieces of rope, running through iron thimbles, by which the bowline attaches to different places on the leech, or edge of a large sail.

BRIG, or BRIGANTINE, a vessel with two masts, rigged as a *ship's* main and fore-masts, except that the main-sail, instead of being fastened to the main-yard which hangs athwart or at right angles to the ship's keel, is, in a brig, fore and aft, or in a direction with the keel, the fore-edge being fastened in different places to hoops, which encircle the main-mast, and slide up and down it, as the sail is hoisted or lowered; it is extended by a gaff above, and by a boom below. This term is, however, variously applied by the mariners of different European nations.

To BRING BY THE LEE, to incline so rapidly to *leeward* of the course when the ship sails large, as to bring the lee-side unexpectedly to windward, and, by laying all the sails aback, expose her to the danger of oversetting. See *to* BROACH *to*.

To BRING TO, to check the course of a ship, by arranging the sails in such a manner as that they shall counteract each other, and keep her nearly stationary, when she is said to *lie by*, or *lie to*.

BRING TO, the order from one ship to another to put herself in that situation, or to stop in order to her being examined, &c.

BRING TO, is also used in applying a rope to the capstern; as, "bring to the messenger."

To BRING UP, to cast anchor.

To BROACH TO, differs from *To bring by the lee*, in that it is a rapid inclination to *windward* of her course; in other respects the effects and danger are nearly the same: these accidents may happen by the negligence or incapacity of the helmsman, by the force of the sea, by carrying away some of the sails, or by disabling the rudder or its appendages.

BROADSIDE, *in a naval engagement*, the whole discharge of the artillery on one side of a ship of war, above and below, as,

"We

"We poured a *broadside* into the enemy's ship," i. e. discharged all the ship's cannon on one side upon her.

BROADSIDE, also implies all that part of a ship above the water which is situate between the bow and quarter, and is in a position nearly perpendicular to the horizon.

"She brought her *broadside* to bear on the castle;" i. e. disposed the ship so as to point all her cannon on one side to it within point-blank-range.

"A squall of wind laid the ship on her *broadside*;" i. e. pressed her down in the water, so as nearly to overturn her.

BROKEN-BACKED, the state of a ship, so loosened in her frame, either by age, weakness, or some great strain, as to droop at each end.

BUCCANEERS, a name given to certain piratical rovers, of various European nations, who formerly infested the coasts of Spanish America. They were originally inoffensive settlers in Hispaniola, but were inhumanly driven from their habitations by the jealous policy of the Spaniards; whence originated their implacable hatred to that nation.

BUCKETS, are made either of canvas, of leather, or of wood; the latter are used principally for washing the decks, and therefore answer the purposes of *pails*.

BUCKLERS, two pieces of wood, fitted together, to stop the hawse-holes, leaving only sufficient space between them for the cable to pass, and thereby preventing the ship taking in much water in a heavy sea.

Ship-BUILDING, the work of constructing ships, as distinguished from NAVAL ARCHITECTURE, which may rather be considered as the art or theory of delineating ships on a plane.

BUILT, the particular form or construction of a ship, by which she is distinguished from others of a different class, construction, or nation; thus we say, a ship is frigate-built, galley-built, &c. carvel-work-built, clincher-work-built; or, English-built, French-built, American-built, &c.

In BULK. See LADEN.

BULK-HEADS, partitions, built up in several parts of a ship, to form and separate the various apartments; some of which are particularly strong. See CLOSE QUARTERS. Others are light, and removeable at pleasure, to clear ship for action.

BULL'S-EYE, a piece of wood in the form of a ring, and answers the purpose of an iron thimble; it is seldom used by the English seamen, and then only for the main and fore bowline bridles.

BUM-BOAT, a small boat, employed to carry vegetables, &c. for sale, to ships lying at a distance from the shore.

BUMKIN, a short boom, or beam of timber, projecting from each bow of a ship, to extend the clue or lower corner of the fore-sail to windward; for which purpose there is a large block fixed on its outer end, through which the tack is passed, which being drawn tight down, the tack is said to be aboard. See TACK.

BUMKIN *shrouds*. See SHROUDS.

BUMKIN *of a boat*, is a small outrigger over the stern, usually serving to extend the mizen.

BUNT, the middle part or cavity of the square sails.

BUNTINE, a thin woollen stuff, of which the colours, or flags, and signals of a ship, are usually formed.

BUNT-LINES, ropes fastened to cringles on the bottoms of the square sails, to draw them up to their yards.

BUNT-LINE-*cloth*, the lining, sewed up the sail in the direction of the bunt-line, to prevent that rope from chafing the sail.

BUOY, a sort of close cask, or block of wood, fastened by a rope to the anchor, to point out its situation. See fig. 42, pl. 2.

BUOYS are of various kinds, as,

Can-BUOYS, in the form of a cone, as fig. 6, pl. 1. of this kind are the buoys which are floated over sands, &c. as marks for ships to avoid them; they are made very

very large, that they may be seen at a distance; where there are several near each other, they are distinguished by the colour, as black, red, and white.

Nun-BUOYS, are large in the middle, and taper nearly to a point at each end; as fig. 7, pl. 1.

Wooden-BUOYS, are solid pieces of light timber, having one or two holes through the ends, in which is fixed a ring of rope called the *strop*.

Cable-BUOYS, are common casks, employed to buoy up the cables in rocky anchorage, to prevent their rubbing against the rocks.

Life-BUOY, is generally of the *Can* kind, though sometimes it is made of cork. It is furnished with a small flag on the top, and is used to throw overboard for a person who has fallen into the sea to lay hold of: while the flag serves to direct a boat to the spot, and thereby frequently saves the life of a fellow-creature.

BUOY-ROPE, the rope which fastens the buoy to the anchor, and should be always of sufficient strength to draw up the anchor; it should also be little more in length than equal to the depth of the water where the anchor lies; see *b*, *c*, *d*, fig. 42, pl. 1

Slings of the BUOY, the ropes which are fastened about it, and by which it is made fast to the buoy-rope, &c. See fig. 7, pl. 1.

To stream the BUOY, is to let it fall from the ship's side into the water, preparatory to letting go the anchor.

BURTHEN, or BURDEN, the weight or measure of any species of merchandize that a ship will carry when fit for sea; the general rule for finding which, is, to multiply the length of the keel, the inner midship breadth, and depth from the main deck to the plank joining the kelson, together, which product divided by 94 gives the *tonnage*, or burthen required in tons.

BURTON, a small tackle, formed by two blocks or pullies; is generally used to set up or tighten the top-mast shrouds, and for many other purposes; whence it is frequently termed a *Top*-BURTON-*tackle*.

BUSH,

BUSH, a circle of metal, usually of brass, let into the *lignum vitæ* sheaves of such blocks as have iron pins, thereby preventing the sheave from wearing, without adding much to its weight.

BUSS, a vessel with two masts, used in the herring fisheries, being generally from 50 to 70 tons burthen.

BUTT, the end of any plank in a ship's side or bottom, which unites with the end of another.

To start or spring a BUTT, is to loosen the end of a plank by the ship's weakness or labouring.

BUTT AND BUTT, a term denoting that the butt ends of two planks come together, but do not overlay each other. See HOOK AND BUTT.

BUTTOCK, the convexity of a ship behind, under the stern; it is terminated by the counter above, by the bilge below, by the rudder in the middle, and by the quarter on the side.

BUTTONS, are sometimes used in fastening a bonnet upon a sail.

BY THE BOARD, over the ship's side.

BY THE HEAD, is when a ship is deeper sunk in the water forward than aft. See *To* DRAW.

BY THE WIND, is when a ship sails as nearly in the direction of the wind as possible.

C.

CABIN, a room or apartment in a ship, where any of the officers usually reside. The apartments where the inferior officers or sailors sleep, and mess are generally called *births*, which see.

CABIN, is also the name given to the bed places built up in merchantmen, for the officers, passengers, and sailors.

CABIN *boy*, a boy whose duty it is to attend and serve the officers and passengers in the cabin.

CABLE, a large strong rope of a considerable length, usually 120 fathoms, used to retain the ship at anchor; the cables receives different epithets, according with the anchors to which they are bent, as the *sheet cable*, *bower cable*, &c. See ANCHOR.

CABLES, are made of various materials, as hemp, bass, and Indian grass, and differ in size according to the bulk of the vessel they are intended for.

Stream CABLE, a hawser or rope, smaller than the bower cables, and used with the stream anchor to moor the ship in a river or haven, sheltered from the wind and sea, &c.

To bitt the CABLE. See BITTS.

To serve the CABLE, to bind it round with ropes, canvas, &c. to prevent it from being galled or worn in the hawse by friction.

Heave in the CABLE, the order to draw it into the ship, by means of the capstern or windlas.

Pay out or *away the* CABLE, slacken it, that it may run out of the ship; this phrase is the same with *veer away the* CABLE.

To slip the CABLE, to let it run out *end for end*.

CABLE'S *length*, a measure of 120 fathoms, by which the distances of ships in a fleet are frequently estimated.

CABLET,

CABLET, a small cable.

CABLE-TIER, the place where the cables are coiled away.

CABOOSE. See GALLEY.

CALL, a silver pipe or whistle of a peculiar construction, used by the boatswain and his mates to summon the sailors to their duty, and direct them in the different employments of the ship; as the call can be sounded to various strains, each of them is appropriated to some particular exercise, such as hoisting, heaving, lowering, veering away, belaying, letting go a tackle-fall, sweeping, &c. all which are as attentively observed by sailors, as the beat of the drum is by soldiers.

CALLIPERS, curved compasses, used to measure masts, shot, and other circular substances.

CALM, the state of rest which appears in the air and sea when there is no wind stirring.

A dead CALM, *stark* CALM, *flat* CALM, are used to denote the greatest possible calm.

CAMBERED, the deck or keel of a ship is said to be *cambered*, or to lie *cambering*, when they are higher in the middle of the length than toward the stem and stern. See BROKEN BACKED.

CAMEL, a machine used at Amsterdam, to bear large vessels over shallows, or flats, where there is not so much water as the ship draws.

CAN, a vessel used by sailors to drink out of.

CAN *buoy*. See BUOY.

CANHOOKS, an instrument used to sling a cask by the ends of its staves, and is formed by reeving a piece of rope through the eyes of two flat hooks, and then splicing its ends together. Fig. 8, pl. 1.

CANNISTER SHOT. See SHOT.

CANNON, a well known piece of artillery, mounted in battery on the decks of a ship, to be used in naval engagements, and is made either of brass or iron.

The principal parts of a cannon are,—Pl. 7, fig. 75,

1st. The

1st. The *breech*, A C, and its *button* or *cascabel*, A h, called by seamen, the *pomiglion*.

2d. The *trunnions*, T, which project on each side like arms, and serve to support the cannon near the middle of its length, holding it almost in equilibrio.

3d. The *bore* or *caliber*, particularly expressed by the dotted line, is the interior or concave cylinder, wherein the powder and shot are lodged when the cannon is charged or loaded.

The entrance of the bore is called the *mouth* or *muzzle*.

The other parts are as follows:—

A B. The length.
A E. The 1st. reinforce.
E F. The 2d. reinforce.
F B. The chase.
H B. The muzzle.
A C. The breech.
A o. The cascabel.
C D. The ventfield.
F I. The chace girdle.
A *i*. The breech mouldings.
m. The swelling of the muzzle.
r s. The base ring & ogee.
t. The vent astragal and fillets.
p q. The 1st. reinforce ring and ogee.
v w. The 2d. do.—do.
x. The chase astragal and fillets.
z. The muzzle do.—do.

Windage of a CANNON, is the difference between the diameter of the shot, and that of the bore of the cannon. Pieces of artillery were formerly distinguished into the names of *sakers, culverins, cannon, demi-cannon*, &c. but at present, their names are derived from the weight of the ball they discharge, and are as follows: 42 pounders—32—24—18—12—9—6—4—3—&c.

CANNONADE, in the marine, is the application of artillery to the purposes of naval war; or, the direction of its efforts against some distant objects intended to be seized or destroyed; as a ship, battery, or fortress.

CANOE, a sort of Indian boat or vessel, formed of the trunk of a tree hollowed, and sometimes, of several pieces of the bark fastened together; they are commonly managed with paddles instead of oars.

To CANT, is to turn any thing about.

CANT *timbers*, those timbers which are situated at the two ends of a ship.

CANVAS, a strong kind of cloth of which the sails are made, and are distinguished in degree of fineness by the first eight digits, of which No. 1, is the coarsest and strongest.

CAP, a strong thick block of wood, having two large holes through it, the one square, the other round, used to confine two masts together, when one is erected at the head of the other, in order to lengthen it. See fig. 9, pl. 1.

CAPE, a promontory or headland, which projects into the sea, farther than the rest of the coast.

CAPPANUS, the worm which adheres to, and gnaws the bottom of a ship; to prevent which, all ships in the Royal navy, and many others, are now sheathed with copper.

CAPSIZE, to upset, or turn over any thing.

CAPSQUARE, or CLAMP, part of a gun carriage. See CARRIAGE.

CAPSTERN, or CAPSTAN, fig. 11, and 12, pl. 1, a strong massey column of timber, formed like a truncated cone, and having its upper extremity pierced to receive the bars or levers; it is let down perpendicularly through the decks of a ship, and is fixed in such a manner, that the men by turning it horizontally with the bars, may perform any work which requires an extraordinary effort; its parts are, the *barrel*, A; the *whelps*, b; the *drum-head*, c; and the *spindle*, d; its appurtenances are, the *bars*, the *pins*, e; the *pawls*, f, fig. 10; and the *swifter*. There are commonly two capsterns in large ships of war; the *main*, fig. 12. and the *gear* capstern, fig. 11; the former of which, has two drum-heads, and may be called a double one, it has also hanging pawls, as g g.

To rig the CAPSTERN, is to fix the bars in their respective holes, thrust in the pins to confine them, and reeve the swifter through the ends.

To man the CAPSTERN, to place the sailors at it, in readiness to heave.

To

To heave at the CAPSTERN, is to go round with it by pushing with the breast against the bars.

To surge the CAPSTERN, is the order to slacken the rope, which is wound round upon it.

To come up the CAPSTERN, is to turn the capstern the contrary way, thereby letting out some of the rope on which they had been heaving.

To pawl the CAPSTERN, is to fix the pawls to prevent it from recoiling during any pause of heaving.

CAPTAIN, in the navy, or *Post* CAPTAIN, an officer who commands a ship carrying twenty or more cannon.

CAPTAIN, is also a title generally, though improperly, given to the master or chief officer of all vessels whatever. It is also applied in the navy, to the chief sailor of particular gangs of men, as captain of the *after guard*; of the *fore-castle*: of the *mast*; of a *top*; or of a *gun*.

CARCASE, a composition of combustible substances, made up in proper dimensions to be placed instead of the shell, in a mortar. It is thrown into towns, in order to set fire to the buildings. It also serves by its light while burning, as a direction in throwing the shells, and to deter persons from approaching to put it out, it is equipped with several pistol barrels loaded with powder and balls to the muzzles, which explode at various times as the composition burns down to them.

CAREENING, the operation of heaving the ship down on one side, by the application of a strong purchase to her masts, which are properly supported for the occasion, to prevent their breaking with so great a strain; by which means one side of the bottom, being elevated above the surface of the water, may be cleansed or repaired, see fig. 60, pl. 3: but this operation is now nearly superceded by sheathing the ships with copper, whereby they keep a clean bottom for several years.

A ship is also said to careen, when she inclines to one side at sea by a press of sail.

CARGO, the lading, or whole quantity of merchandize a ship is freighted with.

CARLINGS, short pieces of timber ranging fore and aft from one deck beam to another.

CARPENTER, an officer appointed to examine and keep in order the frame of the ship, together with her masts, yards, boats, and all other wooden machinery.

CARRIAGE *of a gun*, a strong frame of wood fixed on four solid wheels, or trucks, on which the cannon is placed: its parts are, as follows:

a f. The sides, or cheeks.
i l. The axle-trees.
k k. The trucks or wheels.
m. The transom.
n. The sole or bottom.
p. The bed, fig. 77.
q. The coin, fig. 78.

} All which are of wood.

a. The cap squares, or clamps.
b. The eye bolts.
c. Joint bolts.
d. The transom bolt.
q. The bed bolt.
f. Hind axle-tree bolts.
g. The breeching bolts.
h. Loops, or eye bolts, to which the gun tackle are hooked. See fig. 76, pl. 7.

} Are of iron.

CARRICK BEND, a kind of knot. See BEND.

CARRICK BITTS, the bitts which support the windlass.

CARRONADE, a cannon of peculiar construction, being much shorter and lighter than the common cannon, and having a chamber for the powder like a mortar; they are generally of large caliber, and carried on the upper works, as the poop, and forecastle. They derive their name from Carron in Scotland.

To CARRY AWAY, is to break; as, "That ship has carried away her fore topmast," *i. e.* has broken it off.

CARTEL, a ship commissioned in time of war to exchange the prisoners of any two hostile powers, or

or to carry a proposal, &c. from one to the other; for this reason she has only one gun on board, which is for the purpose of firing signals.

CARTRIDGE, a large paper bag which contains the charge of powder for a cannon.

CARTRIDGE *box*, a circular wooden box, with a lid sliding upon the two parts of a small rope, in a similar manner to the top of a lady's muff-box. It contains one cartridge, and its use is to preserve it from bursting and from fire.

CARVED WORK, the ornaments of a ship which are wrought by the carver.

CARVEL WORK, in contradistinction to *clincher work*; is the common method of planking vessels by laying the edges close to each other, and caulking them to make them water tight.

CASE *shot*. See SHOT.

To CAST, is to fall off, so as to bring the direction of the wind on one side of the ship, which before was right ahead. This term is particularly applied to a ship riding *head to wind*, when her anchor first loosens from the ground.

CAST *away*, the state of a ship which is lost, or wrecked on a lee shore, bank, rock, &c.

To CAST *off*, *to* CAST *loose*, to untie.

CAST *of the lead*, the act of once heaving the lead into the sea, to find what depth of water there is.

CAT, a ship formed on the Norwegian model, they are usually employed in the coal trade.

CAT, is also a sort of strong tackle, used to draw the anchor perpendicularly up to the *cathead*.

CAT *block*. See BLOCK.

CAT HEADS, two strong short beams of timber, projecting almost horizontally over the ship's bows on each side of the bowsprit, and carrying in their outer extremities, A, fig. 14, two or three sheaves, about which a rope called the *cat fall*, passes and communicates with the *cat block*, B. fig. 14, pl. 1.

CAT *hook*, is a strong hook, *c*, fitted to the *cat block*, fig. 15, pl. 1, to hook the ring of the anchor when it is to be drawn up, or *catted*.

CATAMARAN, a sort of a raft or float; also a name given by the sailors to a kind of boat used in the East-Indies.

CATHARPINGS, ropes serving to brace in the shrouds of the lower masts behind their respective yards, for the double purpose of making the shrouds more tight, and of affording room to brace the yards more obliquely when the ship is close hauled.

CAT-O'NINE-TAILS, an instrument of punishment used on board ships in the navy; it is composed of nine pieces of line or cord about half a yard long, fixed upon a piece of thick rope for a handle, and having three knots on each at small intervals, nearest one end; with this the seamen who transgress are flogged upon the bare back.

Thieves CAT, a cat-o'nine-tails having larger and harder knots upon it than those generally used, and is only used for the punishment of theft.

CATSPAW, a light air of wind perceived at a distance in a calm, by the impression made on the surface of the sea, which it sweeps very lightly, and then decays.

CATSPAW, is also a name given to a particular turn made in the bight of a rope, in order to hook a tackle on it. Fig. 107, Plate 8.

To CAULK, to drive a quantity of oakum or old ropes untwisted and pulled asunder, into the seams of the planks in the ship's decks or sides, in order to prevent the entrance of water. After the oakum is driven very hard into these seams, it is covered with hot melted pitch or rosin, to keep it from rotting.

CEILING, the inside planks of a ship.

CENTRE, the division of a fleet between the van and the rear in the line of battle, and between the weather division and lee one, in the order of sailing.

CENTRY,

CENTRY, an armed man placed as a guard at particular places in the ship for security or state.

To CHAFE, to rub or fret the surface of a cable, mast, or yard by the motion of the ship or otherways.

CHAIN PUMP. See PUMP.

CHAINS, strong links or plates of iron, the lower ends of which are bolted through the ship's side; they are placed at short distances from each other on the ship's outside, as being used to contain the blocks, called dead-eyes, by which the shrouds of the masts are extended. Fig. 16, pl. 1.

CHAIN *Shot*. See SHOT.

Top CHAIN, a chain to sling the lower yards in time of battle, to prevent them from falling down when the ropes by which they are hung are shot away.

CHAIN *wales*, or CHANNELS, broad and thick planks projecting horizontally from the ship's outside, beginning abreast of, and continuing somewhat abaft each mast. They are formed to extend the shrouds from each other, and from the axis, or middle of the ship, so as to give a greater security and support to the masts, and to prevent the shrouds from rubbing against the gun-wale. The upper ends of the *chains* pass through notches on the outer edge of the chain-wales, so as to unite with the shrouds above.

CHANNEL, in Hydrography, the deepest part of a river, harbour, or streight, which is most convenient for the track of shipping; also, an arm of the sea running between an island and the main or continent, as the British channel, &c.

CHAPELLING *a ship*, the act of turning her round in a light breeze of wind, when she is close hauled, so that she will lie the same way she did before. This is commonly occasioned by the negligence of the steerman, or by a sudden change of the wind.

CHAPLAIN, the priest appointed to perform divine service on board ships in the Royal navy.

CHARGE *of a cannon*, the quantity of powder put in to be fired at one time, which is usually near one-half the weight of the ball, except in *carronades*, where it is considerably less.

CHART, a marine map or draught, upon which are represented the coasts, isles, banks, rocks, and dangers of the sea, together with the points of the wind, and the entrance of bays and rivers, whereby to regulate the various courses of a ship in her voyage.

CHARTER-PARTY, a deed or writing made between merchants and sea-faring men concerning their merchandize and maritime affairs.

A CHARTER-PARTY *of affreightment*, settles the agreement in relation to the freight and cargo of a ship, between the merchant and master or commander of the vessel; it binds the master to deliver the cargo in good condition at the place where his ship is to be discharged, &c.

In those CHARTER-PARTIES, if the dangers of the sea are excepted, it has been adjudged that such exception extends as well to any danger upon sea from ships of war or pirates as to common hazards of shipwreck, tempests, &c.

CHASE, the vessel pursued by some other.

Bow-CHASE, cannon situated in the fore part of the ship, to fire upon any object ahead of her.

Stern-CHASE, the cannon which are placed in the after part of a ship, pointing astern, and intended to annoy any ship which is in pursuit of her.

To CHASE, to pursue a ship or fleet in sight.

A general CHASE, is when all the ships of a fleet or squadron are ordered by signal to pursue some other fleet in sight.

To CHECK, is to ease off a little of a rope which is found to be too stiffly extended; it is also used in a contrary sense when applied to the cable running out, and then implies to *stopper* the cable.

Clerk

Clerk of the CHECK, an officer who goes on board the ships of the navy to muster the ship's company, of which he keeps a register.

To CHEER, to salute a ship *en passant*, by the people all coming upon deck and huzzaing three times, called three cheers; it also implies to encourage or animate.

CHEERLY, implies heartily, cheerfully, or quickly, as, "row cheerly in the boats, lower away cheerly," that is, row heartily, lower speedily.

CHEEKS *of the Mast*, the faces or projecting parts on each side of the masts, formed to sustain the trestle trees upon which the frame of the top together with the top-mast, immediately rests.

CHEEKS, *or sides of a gun-carriage.* See CARRIAGE.

Ammunition CHESTS, are chests placed in the tops of ships of war to contain the ammunition for the swivels, &c.

Arm CHESTS, are chests placed in various parts of the ship, to afford a ready supply of muskets, pistols, cutlasses, &c.

Color CHESTS, are chests appropriated to the reception of flags for making signals.

CHESSTREES, two pieces of wood bolted perpendicularly, one on each side of the ship; they are used to confine the clues of the main-sail, for which purpose there is a hole in the upper part, through which the tack passes that extends the clue of the sail to windward.

To CHINSE, is to thrust oakum into a seam or chink with the point of a knife or chisel, and is chiefly used as a temporary expedient in lieu of caulking.

CHOCK, a sort of wedge, used to confine a cask or other weighty body in a certain place, and to prevent it from fetching way when the ship is in motion.

CHOCKS *of the rudder*, are large pieces of timber kept in readiness to stop the motion of the rudder in case of any accident and while a new tiller is shipped, &c.

CHOCK-A-BLOCK, is the same with BLOCK-A-BLOCK, which see.

To CHOP-ABOUT, is applied to the wind when it varies frequently and suddenly.

CISTERN, a large wooden trough, placed in the well just below the orlop, and having a leaden pipe, which goes through the ship's side whereby it is occasionally filled with sea-water, which is thence pumped up to wash the decks, &c.

CLAMPS, thick planks on the inner part of a ship's side, used to sustain the ends of the beams, and extending from stem to stern.

CLAMPS, are also smooth crooked plates of iron forelocked upon the trunnions of the cannon to keep them fast upon their carriages. See CARRIAGE.

CLAMPS, of the latter kind, are likewise frequently used to fasten the masts or bowsprits of small vessels, and of boats.

To CLAP ON, is to fasten or to lay hold of, as, "Clap on the stoppers before the bits," *i. e.* fasten the stoppers; "Clap on the cat-fall," *i. e.* lay hold of the cat-fall.

To CLAW OFF, to be at, or turn to windward from a lee-shore, so as to be at sufficient distance from it.

CLEAR, as a naval term, is applied to the weather, the sea coasts, cordage, navigation, &c.

CLEAR *weather*, as opposed to cloudy or foggy.

CLEAR *coast*, when the navigation is not rendered dangerous by rocks, sands, or breakers.

CLEAR, is expressed of cordage, cables, &c. when they are disentangled so as to be ready for immediate service. It is usually opposed to FOUL in all these cases.

CLEARHAWSE. See HAWSE.

To CLEAR is variously applied, implying to escape from, to unload, to empty, and to prepare, as

To CLEAR *the land.*

To CLEAR *a lighter*, or *the hold.*

To CLEAR *for action.*

CLEATS, pieces of wood of different shapes, used occasionally in a ship to fasten ropes upon, some have one and some two arms, as a, b, fig. 17; others are without arms, being hollowed in the middle to tie any thing to

to, as at c, a and b are called *belaying cleats*, c, a *deck cleat*, and d, a *thumb cleat*.

CLICKS, are small pieces of iron falling into a notched wheel attached to the winches in cutters, &c. and thereby serving the office of pawls.

CLINCH, a particular method of fastening large ropes by a kind of knot, and seizings instead of splicing, and is chiefly used to fasten the cable to the ring of the anchor, and the breechings of guns to the ring-bolts in the ship's side. See a cable clinch, plate 8, fig. 108, and outside clinch, plate 8, fig. 109.

CLINCHER-WORK, the disposition of the planks in the side of any boat or vessel, when the lower edge of every plank overlays that next below it, like slates on the roof of a house. See CARVEL-WORK.

CLINCHER-BUILT, made of clincher-work.

CLOSE-HAULED, the arrangement of a ship's sails when she endeavours to make a progress in the nearest direction possible towards that point of the compass from which the wind blows; in this manner of sailing the keel of square-rigged vessels commonly makes an angle of six points with the line of the wind, but cutters, luggers, and other fore and aft rigged vessels will sail much nearer.

CLOSE QUARTERS, certain strong barriers of wood stretching across a merchant ship, in several places; they are used as a place of retreat when a ship is boarded by her adversary, and are therefore fitted with loop-holes through which to fire the small arms; they are likewise furnished with caissoons or powder-chests fixed upon the deck, which may be fired at any time from the close quarters upon the boarders.

CLOTHS, *in a sail* are the breadths of canvas in its whole width.

CLOVE-HITCH. See HITCH.

To CLUB-HAUL, is a method of tacking a ship, by letting go the lee-anchor as soon as the wind is out of the sails, which brings her head to wind, and as soon as she pays off, the cable is cut, and the sails trimmed;

med; this is never had recourse to but in perilous situations, and when it is expected the ship will miss stays.

CLUE of a sail, the lower corners of square sails; but the aftmost only of staysails, &c. the other lower corner being called the tack.

CLUES *of a hammock*, the combination of small lines by which it is suspended, being formed of knittles, grommets, and laniards, and are termed double or single clues, according as there are one or two at each end.

A Spanish CLUE, is formed by fixing the knittles at equal distances upon a piece of rope instead of a grommet, which having an eye spliced, and a laniard placed at each end, extends the hammock similar to a double clue.

From CLUE *to earing*, a phrase implying from the bottom to the top, or synonimous with *"from top to toe."*

CLUE-*garnets*, are a sort of tackle fastened to the clues of the main and fore sails to truss them up to the yard, which is termed clueing up those sails, *d d*, fig. 63, pl. 4.

CLUE-*lines*, are for the same purpose as clue garnets, only that the latter term is solely appropriated to the courses, while the word clue-line is applied to those ropes on all the other square sails, *e e e e*, fig. 63, pl. 4.

COACH, or COUCH, a sort of chamber or apartment in a large ship of war near the stern, the roof of which is formed by the poop.

COAMINGS *of the hatches*, certain raised borders about the edges of the hatches of a ship, to prevent the water on the deck from running down into the lower apartments.

COAST, the sea shore.

COASTER, a vessel employed going from one port to another on the same coast, and therefore seldom losing sight of the land.

COASTING, or *to* COAST *along*, the act of making a progress along the sea coast of any country, for which pur-

purpose it is necessary to observe the time and direction of the tide, to know the reigning winds, the roads and havens, the different depths of water and the qualities of the ground.

COASTING *pilot*, a pilot who by long experience has become sufficiently acquainted with the nature of any particular coast, and the requisites mentioned in the preceding article, to conduct a ship or fleet from one part of it to another.

COAT, a piece of tarred canvas nailed round that part of the masts and bowsprit which joins to the deck, or lays over the stem: its use is to prevent the water from running down between decks. There is also a *coat* for the rudder, nailed round the hole where the rudder traverses in the ship's counter.

COAT, also implies the stuff with which the ship's sides or masts are varnished to preserve them from the sun and weather, as turpentine, tar, &c. in this sense we say, "Give her a good coat of tar."

COBBING, a punishment sometimes inflicted at sea: It is performed by striking the offender a certain number of blows on the breech, with a flat piece of wood called the *cobbing board*.

COBOOSE, the place where the victuals is cooked on board merchant ships.

COCKBILL. See ANCHOR.

COCKPIT, is near the apartments of the surgeon and his mates, being the place where the wounded men are dressed. It is situated near the after-hatchway, and under the lower gun-deck.

Fore COCKPIT, a place leading to the magazine-passage, and the boatswain's, gunner's, and carpenter's store rooms; in large ships, and during war time, the boatswain and carpenter generally have their cabbins in the fore cockpit, instead of being under the forecastle.

COCKSWAIN, pronounced COXEN, the officer who steers a boat, and has the command of the boat's crew.

COIL, the manner in which all ropes are disposed aboard ships, for the conveniency of stowage.

COILING, is a sort of serpentine winding the ropes, by which they occupy a small space, and are not liable to be entangled amongst one another in working the sails. Each winding of this sort in a cable is called a *fake*, and one range of fakes is called a *tier*, of which there are generally three or four in a cable's length: the small ropes are frequently coiled by hand and hung upon *cleats*.

Flemish COIL, is a rope coiled up in a spiral manner, forming but one tier, and laying flat on the deck, the end being in the middle of it.

COLLAR, the upper part of a stay, pl. 8, fig. 118; also, a rope formed into a wreath, with a heart or dead-eye seized in the bight, to which the stay is confined at the lower part. See STAY.

COLLIERS, vessels employed to carry coals from one port to another, chiefly from the northern parts of England to the capital, the more southern parts, and foreign markets.

COLOURS, the flags or banners which distinguish the ships of different nations. See ENSIGN, JACK, and PENDANT.

COMING TO, or COMING UP. See TRYING.

COME NO NEAR, the order to the helmsman not to steer the ship so close to the wind.

COME UP *the capstern*, is to turn it the contrary way, to that which it was heaving, so as to slacken or let out some of the rope which is about it.

COME UP *the tackle fall*, is to slacken it gently.

To COME UP *with*, to overtake.

COMMANDER, an officer in the Royal Navy who has the command of a ship of war under twenty guns, as sloops of war, armed ships, or bomb vessels. He is entitled *Master* and *Commander*, and ranks with a Major of the Army

COMMANDER, is also the name of a large wooden mallet used on sundry occasions in a ship.

COM-

COMMANDER *in chief*, is the chief admiral in any port, or on any station, appointed to hold command over all other admirals within that jurisdiction.

Lords COMMISSIONERS *of the Admiralty*. See ADMIRALTY.

COMMISSIONERS *of the Navy*, certain officers appointed to superintend the affairs of the marine, under the direction of the Lords Commissioners of the Admiralty. Their duty is more immediately concerned in the building, docking, and repairing the ships in the dock-yards; they have also the appointment of some of the warrant officers, as surgeons, masters, &c. They are generally eight in number, besides the *Resident* COMMISSIONERS, who are three in number: these latter, severally reside at and manage the affairs of the three dock-yards at Chatham, Portsmouth, and Plymouth, under the direction of the Navy-board in London.

COMMISSIONERS *of the victualling*, officers appointed to superintend the supply of provisions for the use of the Royal Navy.

COMMODORE, a general officer in the British navy, invested with the command of a detachment of ships of war, destined on any particular enterprize: during which time, he bears the rank of brigadier-general in the army, and is distinguished from the inferior ships of his squadron by a broad red flag or pendant, tapering towards the outer end, and sometimes forked.

COMMODORE, is also a title given by curtesy to the senior captain, where three or more ships of war are cruizing in company.

COMMODORE, also denotes the convoy ship in a fleet of merchantmen, who carries a light in his top to conduct the rest, and keep them together.

COMPANION, a sort of wooden porch placed over the entrance, or stair-case of the master's cabin in merchant ships; whence

COMPANION *ladder*, in ships of war, denotes the ladder by which the officers ascend to and descend from the quarter deck.

COMPANY, the whole crew of any ship, including her officers.

COMPASS, an instrument employed to ascertain the ship's course at sea, consisting of a circular box, containing a paper card. The card, fig, 19, pl. 1, which represents the horizon, is divided into 32 equal parts, by lines drawn from the centre to the circumference, called points or rhumbs; the intervals between the points are also subdivided into halves and quarters, and also the whole circumference into equal parts called degrees, 360 of which complete the circle, and consequently the distance, or angle, comprehended between any two rhumbs, is equal to 11 degrees and $\frac{1}{4}$, or 15 minutes. The four principal points are called the cardinal points, two of which, opposite to each other are called the North and South points; that which is toward the right-hand when we look North, is termed the East, and its opposite the West point; the names of all the inferior ones are compounded of these according to their situation. Along the North and South line is fixed a small bar of steel, N S. fig. 19, termed the needle, which, being touched by the loadstone, acquires a certain virtue whereby it hangs nearly in the plane of the meridian, and consequently, determines the direction of the other points towards the horizon. This card and needle having a small socket in the centre, is supported on the point of a fine pin of steel, the whole being confined in the circular box, E, fig. 20, with a glass cover, which box is hung in *gimbals*, D G H, to counteract the motion of the ship. A square box, A B. with a moveable lid, serves to support the gimbals and secures the compass from accident in removals. See GIMBALS.

Hanging COMPASS, an instrument resembling the last article, except that the point which supports the card, is fixed in the centre of the glass, and the gimbals are attached to a beam over the observer's head. There is usually one hung in the cabin, that by looking

up

up to it, the ship's course may be observed without the trouble of going upon deck.

The points of the compass are as follows :—

North.	South.
North by East.	South by West.
North North East.	South South West.
North East by North.	South West by South.
North East.	South West.
North East by East.	South West by West.
East North East.	West South West.
East by North.	West by South.
East.	West.
East by South.	West by North.
East South East.	West North West.
South East by East.	North West by West.
South East.	North West.
South East by South.	North West by North.
South South East.	North North West
South by East.	North by West.

COMPASSING, a name given by shipwrights, to such pieces of timber as are much incurvated or arched.

COMPTROLLER *of the Navy*, one of the commissioners of the Navy-board, at which he presides.

COMPLEMENT, the limited number of men employed in any ship, either for navigation or battle.

CONDUCTOR, a thick metal wire, generally of copper, extending from above the main-top-gallant truck downwards into the water. Its use is to defend the ship from the effects of lightning.

CONSORT, any vessel keeping company with another.

CONSUL, an officer established by virtue of a commission from the king, in all foreign countries of any considerable trade, to facilitate and dispatch business, and to protect the merchants of his nation.

CONTINENT, in geography, a large tract of land which is not surrounded by water.

CONVOY, a fleet of merchant ships bound on a voyage to some particular part, and protected by an armed force.

CONVOY, also implies the ship or ships appointed to conduct and defend them on their passage thither.

COOK-ROOM, the GALLEY, or CABOOSE, which see.

COPPERED, or COPPER-BOTTOMED, sheathed with thin sheets of copper, which prevents the worm eating into the planks, or filth accumulating on the bottom, whereby a ship was made to sail heavily.

COPPER-*fastened*, the bolts and other metal work in the exterior of the bottom, made of copper instead of iron; the advantage of which is, that the vessel may afterwards be coppered without danger of the sheathing corroding the heads of the bolts, which it is found to do, if they are made of iron.

CORDAGE, a general term for the running rigging of a ship, as also for the rope which is kept in reserve to supply the place of such as may be rendered unserviceable. See RIGGING.

Cable-laid CORDAGE, ropes, the three strands of which are composed of three other strands, as are cables.

CORPORAL *of a ship of war*, an officer under the master at arms, employed to teach the sailors the use of small arms or musketry; to attend at the gangways or entering ports, and observe that no spirituous liquors are brought into the ship, unless by particular leave of the officers. He is also to extinguish the fire and candles at 8 o'clock in winter and 9 o'clock in summer when the evening gun is fired, and to walk frequently down on the lower decks in his watch, to see that there are no lights but such as are under the charge of proper centinels.

CORPOSANT, a name given to the luminous appearance often beheld in a dark tempestuous night about the decks and rigging of a ship, but particularly at the extremities, as the mast-heads and yard-arms, and is most frequent in heavy rain accompanied with lightning. This appearance, which is nothing more than the electric fluid, passing silently from the clouds to the water,

water, or the contrary, by means of the humidity on the masts and rigging; was, in the dark ages of superstition, esteemed by some a good omen, and by others an evil one; but modern philosophy has so happily explored its cause, that none but the most ignorant are now imtimidated by it.

CORSAIR, a name commonly given to the piratical cruizers of Barbary, who frequently plunder the merchant ships of European nations with whom they are at peace.

COTT, a particular sort of bed-frame suspended from the beams of a ship for the officers to sleep in. It is made of canvas, sewed in the form of a chest, about six feet long, one foot deep, and two or three feet wide, and is extended by a square wooden frame with a canvas bottom, on which the bed, or mattress is laid.

COVE, a small inlet; also a harbour for shipping: as the Cove of Cork.

COVER, protection; as under *cover* of the ship's guns.

COUNTER, an arch or vault, whose upper part is terminated by the bottom of the stern, and the lower part by the wing transom and buttock.

The upper or *second* COUNTER, is above the preceding, and parallel to it, but not vaulted, and extends from the top of the lower counter to the bottom moulding of the cabin, or ward room windows.

COUNTER-BRACING. See TACKING.

COURSE, the angle contained between the nearest meridian and that point of the compass on which a ship sails in any particular direction.

COURSES, a name by which the principal sails of a ship are usually distinguished; viz. the main sail, fore sail, and mizen: the stay sails upon the lower masts are sometimes also comprehended in this denomination, as are the main stay sails of all brigs and schooners.

COURT-MARTIAL, a court composed of admirals and captains of the navy, for the trial of offenders against the articles of war.

CRAB,

CRAB, a wooden pillar, somewhat resembling a small capstern, but is not furnished with a *drum-head*; instead of which, two, three, or four holes are made one above another through the middle of its upper end, into which long bars are thrust, whose length is nearly equal to the breadth of the deck. It is employed to the same purposes as the capstern, but not being so convenient is now generally laid aside, except in rope walks, &c. See fig. 10, and 13, pl. 1.

CRADLE, fig. 23, pl. 1, a frame placed under the bottom of a ship, in order to conduct her steadily and smoothly into the water when she is to be launched, at which time it supports her weight while she slides down the descent or sloping passage, called the *ways*, which are for this purpose daubed with soap or tallow.

CRADLES, are also standing bedsteads made up for the wounded seamen, that they may be more comfortable than it is possible to be in a hammock.

CRAFT, a general name for all sorts of vessels employed to load or discharge merchant ships, or to carry along-side, or return the guns, stores, or provisions of a man of war; such are lighters, hoys, barges, &c.

Small CRAFT, is a term used to denote the small vessels of war attendant on a fleet, such as cutters, schooners, gun-boats, &c. which are generally commanded by lieutenants.

CRANK, the quality of a ship, which for want of a sufficient weight below, is rendered incapable of carrying sail, without being exposed to the danger of overturning. See BALLAST and TRIM.

CRANK, is also an iron brace, variously employed.

CRAWL, a sort of pen or place of confinement, formed by a barrier of stakes and hurdles on the sea coast to contain fish.

CREEPER, an instrument of iron resembling a grappling, having a shank and four hooks or claws. It is used to drag along the bottom of any river or harbour with a rope fastened to it, to hook and draw up any

any thing from the bottom which may have been lost. Fig. 24, pl. 1.

CREEK, a small river, or narrow inlet of the sea.

CRINGLE, a small hole formed on the bolt-rope of a sail, by intertwisting the strand of a rope alternately round itself, and through the strands of the bolt rope till it becomes threefold, and assumes the shape of a ring. The use of the cringle is to receive the ends of ropes which are fastened thereto, for the purpose of drawing up the sail to its yard, or extending the leech by the bow-line-bridles, &c. See fig. 25, pl. 1, where *a b*, represents part of the bolt-rope, and *c*, the cringle

Iron CRINGLES, or *hanks*, are open rings running upon the stays, to which the heads of the stay sails are made fast.

CROSS *in the hawse*, is when a ship moored with two anchors from the bows, has swung the wrong way once, whereby the two cables lay across each other. See HAWSE.

CROSS JACK, pronounced *crojeck*, *yard*, the lower yard on the mizen mast, to the arms of which the clues of the mizen topsail are extended.

CROSS JACK *sail*, is a sail bent to that yard, but is scarcely ever used.

CROSS *piece*, a rail of timber extending over the windlass of a merchant ship from the knightheads to the belfry. It is furnished with wooden pins to fasten the running rigging to, as occasion requires.

CROSS *trees*, certain pieces of timber supported by the cheeks and trestle trees at the upper ends of the lower and topmasts, athwart which they are laid to sustain the frame of the tops on the one, and to extend the top-gallant shrouds on the other.

CROTCHES, the crooked timbers that are placed upon the keel in the fore and hind parts of a ship.

CROTCHES, are also pieces of wood or iron, whose upper part opens into two horns or arms like a half moon. They are fixed in different parts of a ship, according to

to the uses for which they are designed, which is usually to support booms, spare topmasts, yards, &c. Fig. 26, pl. 1.

CROW, an iron lever furnished with a sharp point at one end and two claws at the other. It is used for various purposes; as to remove weighty bodies, to direct and manage the great guns, &c.

To CROWD, to carry an extraordinary force of sail upon a ship, in order to accelerate her course on some important occasion: as in pursuit of, or flight from, an enemy, &c.

CROW-FOOT, a complication of small cords, spreading out from a kind of long block. It is used to suspend the awnings, or to keep the topsails from fretting against the edge of the tops. Fig. 28, pl. 2.

CROWN *of an anchor*. See ANCHOR.

CROWNING, the finishing part of some knots made on the end of a rope, to prevent the ends of the strands becoming loose or untwisted.

CRUIZE, a voyage or expedition in quest of vessels or fleets of an enemy, which may be expected to sail through any particular tract of the sea at a certain season of the year; it is performed by traversing that particular tract which is called the cruizing latitude, under an easy sail backward and forward.

CRUIZER, a vessel employed on a cruize.

CRUTCH, or CROTCH, a support for the main boom of a sloop, brig, or cutter, &c. and for the driver boom of a ship when their respective sails are furled. See CROTCHES.

CUDDY, a sort of cabin or cook-room, generally in the fore-part, but sometimes near the stern of particular vessels, such as lighters and barges of burthen.

CUDDY, in East-India ships, denotes the great cabin under the poop.

CUNNING or CONNING, the art of directing the steers-man to guide the ship in her proper course; the officer who performs this duty is usually the pilot or a quarter-master.

CUNT-LINE, the space left by laying two casks end to end; thus, we say to stow bilge and cunt-line; that is, to put the bilge of one cask in the vacancy made by the narrow ends of two others coming together, as *a* lies in the cunt-line of b c, fig. 27, pl. 2.

CURRENT, a certain progressive movement of the water of the sea, by which all bodies floating therein are compelled to alter their course or velocity, or both, and submit to the laws imposed upon them by the current. They are various, and directed towards different parts of the ocean, of which some are constant and others periodical.

As the knowledge of the direction and velocity of currents is a very material article in Navigation, it is highly necessary to discover both, in order to ascertain the ship's situation and course with as much accuracy as possible; one method practised for this purpose is as follows: a boat being hoisted out when there is little or no wind to ruffle the surface of the sea, a large iron pot is let down from her stern by a rope seventy or eighty fathoms long, by which means she rides almost as steady as if at anchor; the velocity of the current is then easily discovered by the log and half minute glass, and its direction is obtained by the compass placed in the boat.

The current being known, it remains to apply its effects to the ship's course; if the ship sails in the direction of the current, her motion is increased by as much as is the velocity of the current.

If the current sets directly against the ship's course, then her motion is retarded in proportion to the strength of the current; hence, if the velocity of the current is less than that of the ship, then the ship will advance so much as the difference of the velocities. If the velocity of the current be greater than that of the ship, then will the ship fall as much astern as is that difference; and if the velocities be equal, then will the ship remain stationary.

If

If the current thwarts the ship's course in any direction it not only increases or diminishes her velocity, but gives her a new direction compounded of the course she steers and the setting of the current; thus, suppose a ship sails by the compass in the direction A B, fig. 90, pl. 7, any given distance, as A B in twenty-four hours, in a current that sets in the direction A C the distance A C in the same time, it is evident that the ship's place at the end of that time will neither be at B nor C, but at D, having formed a diagonal course in the line A D.

CUTTER, a vessel furnished with one mast and a straight running bowsprit, or which can be run in on the deck occasionally; except which, and the largeness of the sails, they are rigged much like sloops.

CUTTER, is also a boat used by ships of war. See BOAT.

CUTTING-DOWN LINE, a curve line used by shipwrights in the delineation of ships; it determines the thickness of all the floor timbers, and likewise the height of the dead wood afore and abaft.

CUT-WATER, the foremost part of the ship's prow, formed of an assemblage of several pieces of timber to render it broad at the upper part, where it projects forward from the stem to open the column of water as the ship sails along, and also to make her keep to windward better when she is close-hauled; it is otherwise called the *knee of the head*.

D.

DAVIT, a beam of timber used as a crane whereby to hoist the flukes of the anchor to the top of the bow, without injuring the planks of the ship's side as it ascends: an operation which, by seamen, is called *fishing* the anchor; the lower end of the davit rests on the fore chains, the upper end being properly secured by a tackle from the mast-head; upon the outer end is hung a large block, through which a strong rope is reeved called the *fish-pendant*, to whose outer end is fitted a large hook, and to its inner end a tackle; the former is called the *fish-hook*, the latter the *fish-tackle*. The anchor being first *catted*, the fish-hook is fastened on its flukes, and is, by means of the fish-pendant and tackle, drawn up sufficiently high upon the bow to be made fast by the shank-painter.

There is also a *davit* of a smaller kind, occasionally fixed in the long-boat, and, with the assistance of a small windlass, used to weigh the anchor by the buoy-rope, &c.

DAY'S WORK, the reckoning or account of a ship's course and distance run during twenty-four hours, or from noon to noon, according to the rules of TRIGONOMETRY.

DEAD EYE, a sort of round flattish wooden block encircled with a rope, or with an iron band, and pierced with three holes through the flat part, in order to receive a rope called the laniard, which, corresponding with three holes in another dead eye, creates a purchase employed for various uses, but chiefly to extend the shrouds and stays, otherwise called the standing rigging. See fig. 31, pl. 2. The *dead eyes* used for the stays have only one hole, which, however,

however, is large enough to receive ten or twelve turns of the laniard; these are generally termed HEARTS; fig. 32, pl. 2.

The crowfeet DEAD EYES, are long cylindrical blocks, with a number of small holes in them, to receive the legs or lines of which the crowfoot is composed, as, fig. 33, pl. 2.

DEAD LIGHTS, strong wooden ports made exactly to fit the cabin windows, in which they are fixed on the approach of a storm, the glass frames being taken out, which would otherwise be shattered by the violence of the waves.

DEAD RECKONING, the judgment or estimation which is made of the place where a ship is situated, without any observation of the heavenly bodies; it is discovered by keeping an acconnt of the distance she has run by the log, and of her course steered by the compass, and by rectifying these data by the usual allowances for *drift*, *lee-way*, &c. according to the ship's known trim; this reckoning is, however, always to be corrected as often as any good observation of the sun can be obtained.

DEAD RISING, or RISING LINE of the floor, those parts of a ship's floor or bottom throughout her whole length, where the floor timber is terminated on the *lower futtock*.

DEAD WATER, the eddy of water which appears like little whirlpools closing in with the ship's stern as she sails through it.

DEAD WOOD, certain blocks of timber laid upon the keel, particularly at the extremities afore and abaft, where these pieces are placed upon each other to a considerable height, because the ship is there so narrow as not to admit of the two half-timbers, which are therefore scored into this dead wood.

DEAD WORK. See UPPER WORK.

To DEADEN *a ship's way*, to lessen her velocity through the water.

DECKER,

DECKER, relates to the rate of a ship of force, as a *two-decker*, a *three-decker*, i. e. carrying two entire tiers or ranges of cannon, or three such tiers.

DECKS, the planked floors of a ship which connect the sides together, and serve as different platforms to support the artillery and lodge the men, as also to preserve the cargo from the sea and rain. Ships of the first and second rate are furnished with three whole decks, reaching from the stem to the stern, besides a *forecastle* and a *quarter-deck*, the former extending aft from the stem to the belfry, and the latter forward from the stern to the main-mast, a vacancy being left in the middle which opens to the upper-deck and forms what is called the *waist*; there is yet another deck above the hinder part of the quarter-deck called the *poop*, which also serves as a roof for the captain's cabin or *coach*; and another deck below the lower-gun-deck called the *orlop*, whereon the cables are coiled and the sails stowed, &c.

Other ships of the line with fifty gun ships and some of forty-four guns have two gun-decks and a quarter-deck, a forecastle, a poop, and orlop. Frigates and sloops have one gun-deck, a half-deck, and forecastle, with a spar-deck below to lodge the crew, but no poop; brigs, cutters, and such small vessels have no half-deck or forecastle, and are then said to be *flush* fore and aft: the decks are formed of and sustained by the *beams*, the *clamps*, the *water-ways*, the *carlings*, the *ledges*, the *knees*, and two rows of small pillars called *stanchions*, &c. See those articles.

Half-DECK, the *under* part of the quarter-deck of a ship of war contained between the foremost bulk-head of the cabin or ward-room, and the *break* of the quarter-deck.

Main-DECK, that part of the upper-deck which extends from the break of the forecastle to the break of the quarter-deck; also called the waist.

DECLINATION, is the sun's distance from the equator, either north or south.

DECOY, a stratagem employed by a small ship of war to betray a vessel of inferior force into an incautious pursuit till she has drawn her within the range of her cannon, or what is called within gun-shot.

DECOYING, is sometimes used by a single ship to induce an enemy's squadron to follow her into the view of her own fleet.

It is also performed to elude the chase of a ship of superior force in a dark night, by throwing out a lighted cask of pitch into the sea, and then changing the course.

DEEP-SEA-LEAD. See LEAD.

DEEP-WAISTED, the distinguishing fabric of a ship's decks when the quarter-deck and forecastle are elevated from four to six feet above the level of the upper or main-deck, so as to leave a vacant space, called the waist, on the middle of the upper deck.

DEMURRAGE, an allowance given to the commander of a trading ship by the merchants for having detained him longer in port than the time previously appointed for his departure.

DEPARTURE, the distance of any two places lying on the same parallel, counted in *miles* of the equator, or the distance of one place from the meridian of another, counted on the parallel passing over that place.

DEPTH *of a sail*, the extent of the square sails from the head-rope to the foot-rope, or the length of the after-leech of a stay-sail or boom-sail; in other words, it is the extent of the longest cloth of canvas in any sail.

DETACHMENT, of a fleet or squadron, a certain number of ships chosen by an admiral or commodore from the rest of the fleet to execute some particular service.

DIFFERENCE *of latitude*, the distance between any two places lying on the same meridian, or the difference between the parallels of latitude of any two places, expressed in miles of the equator.

DIFFERENCE *of longitude*, is the distance of any place from another eastward or westward, counted in *degrees* of the equator.

DINNAGE. See DUNNAGE.

DIP *of the horizon*, is an allowance made in all astronomical observations of altitude for the height of the eye above the level of the sea.

DIP *of the magnetic needle*, a certain property which all needles possess when rubbed with the load-stone, of inclining the north end below the level of the horizon; this property is found to increase in going northward.

DISABLED, the state of a ship when, by the loss of her masts, sails, yards, or rigging, by springing a leak, receiving some fracture in the hull, or other disaster she is rendered incapable of prosecuting her voyage without great difficulty and danger.

To DISCHARGE, when applied to a ship, signifies to unlade her, or take out her stores, ammunition, &c. When expressed of the *officers* or *crew*, it implies to disband them from immediate service. When spoken of *cannon* it means to fire it off.

DISCIPLINARIAN, an officer who maintains strict and rigorous discipline.

To DISMANTLE, to unrig a ship and take out all her stores, guns, &c. in readiness for being laid up in ordinary, or for any other purpose.

DISMASTED, the state of a ship deprived of her masts, whether by design or accident.

DISMOUNTED, the state of a cannon taken off its carriage, or when, by the enemy's shot, the carriage is so broken as that the gun is rendered unmanageable.

To DISPART *a gun* is, to set a mark on the muzzle-ring of a cannon or thereabouts, so that a sight-line taken from the top of the base-ring against the touch-hole, by the mark-set on or near the muzzle, may be parallel to the axis of the concave cylinder.

DIVISION, a select number of ships in a fleet or squadron of men of war, distinguished by a particular flag,

pendant, or vane, and sometimes commanded by a general officer. A squadron is commonly ranged into three divisions, the commanding officer of which is always stationed in the center. In a large fleet the admiral divides it into three squadrons, each of which is commanded by an admiral, and is again subdivided into three divisions; each squadron has its proper colours according to the rank of the admiral who commands it; and each division its proper mast. The private ships carry pendants of the same colour with their respective squadrons at the masts of their particular divisions, so that the ships in the last division of the blue squadron carry a blue pendant at their mizen top-gallant-mast-head. These distinctions of divisions are not, however, constantly practised.

DOCK, a broad and deep trench formed on the side of a harbour, or the banks of a river, and commodiously fitted, either to build ships or receive them to be repaired; these docks have generally strong flood-gates to prevent the flux of the tide from entering the dock.

There are likewise wet docks, without flood-gates, where a ship can only be cleaned during the recess of the tide, or between the time when the tide leaves her dry aground, and the period when it reaches her again.

DOCKING *a ship*, the act of drawing her into dock.

DOCK-YARDS, arsenals containing all sorts of naval stores and timber for ship-building. In England the Royal dock-yards are at Chatham, Portsmouth, Plymouth, Deptford, Woolwich, and Sheerness, where his Majesty's ships and vessels of war are generally moored during peace; the three first of these yards are governed by a Commissioner *resident* at the port, who superintends all the musters of the officers, artificers, and labourers, employed in the dock-yard and ordinary; he also controls their payment therein, examines their accounts, contracts and draws bills on the navy-office to supply the deficiency of stores; and finally, regulates whatever belongs to the dock-yard, maintaining due order in the respective offices.

DOG, a sort of iron hook or bar with a sharp fang at one end, so formed as to be easily driven into a piece of timber; it is used to drag it along by means of a rope fastened to it, upon which any number of men can pull.

DOGGER, a Dutch vessel navigated in the German ocean; it is equipped with two masts, a main and a mizen-mast, and somewhat resembles a ketch.

DOG-VANE, a small vane composed of thread, cork, and feathers, fastened on the end of a half pike, and placed on the weather gun-wale to steer the ship by, when sailing on a wind.

DOG-WATCH. See WATCH.

DOLPHIN *of the mast*, a kind of wreath formed of plaited cordage, to be fastened occasionally round the mast as a support to the *puddening*; the use of which is to sustain the weight of the fore and main-yards by the jears, in case the rigging or chains, by which those yards are suspended, should be shot away in the time of battle. See PUDDENING.

DOUBLE-BANKED, the situation of the oars of a boat, when two opposite ones are managed by rowers seated on the same bench or thwart; the oars are also said to be double-banked when there are two men labouring upon each oar.

To DOUBLE *a cape*, is to sail round or pass beyond it, so as that the point of land is between the ship and her former situation.

DOUBLING NAILS, the nails commonly used to fasten the lining of the gun-ports, &c.

DOUBLING *upon*, in a naval engagement, the act of enclosing any part of a hostile fleet between two fires, or of cannonading it on both sides.

DOUBLE-HEADED SHOT. See SHOT.

To DOUSE, to lower or slacken suddenly; expressed of a sail, or hawser.

DOWN HAUL, a rope passing up along a stay, through the cringles of the stay-sails or jib, and made fast to the upper corner of the sail to pull it down when shortening sail.

DOWN HAUL *tackles*, a complication of tackles employed to pull down the main or fore yard in a tempest, in order to reef the sail, because the violence of the wind prevents the weight of the yard from having its natural effect of descending.

DOWN ALL CHESTS, the order to get all the officers and seamen's chests down below from off the gun-decks, when clearing the ship for an engagement.

DOWN *all hammocks*, the order for the sailors to carry their hammocks down, and hang them up in their respective births in readiness to go to bed.

DOWN *fore-sail*, the command to set the fore-sail.

DOWN *jib* and *stay-sails*, the order to take in those sails. It is also applied in this sense to the *studding-sails*.

DRABLER, an additional part of a sail, sometimes laced to the bottom of a bonnet on a square sail, in sloops and schooners.

DRAG, a machine consisting of a sharp square frame of iron incircled with a net.

DRAGGING *the anchor*, the act of trailing it along the bottom, after it is loosened from the ground by the effort of the wind or current.

DRAUGHT, the depth of a body of water necessary to float a ship; hence a ship is said to draw so many feet of water, when she is borne up by a column of water of that particular depth, and that this draught may be more readily known, the feet are marked on the stem and stern-post from the keel upwards.

DRAWING, the state of a sail when it is inflated by the wind, so as to advance the vessel in her course.

To DRAW. See DRAUGHT.

To DRAW *upon a ship*, is to gain upon a vessel when in pursuit of her.

DREDGE, a kind of drag used with a long rope to catch oysters in deep water.

To DRESS *a ship*, to ornament her with a variety of colours, as ensigns, flags, pendants, &c. of various nations, displayed from different parts of her masts, rigging, &c. on a day of festivity.

DRIFT, the angle which the line of a ship's motion makes with the nearest meridian when she drives with her sides to the wind and waves, and is not governed by the power of the helm. It also implies the distance which the ship drives on that line.

DRIFT *of a current*, is its angle and velocity. See CURRENT.

To DRIVE, to be carried at random along the surface of the water, as impelled by a storm or impetuous current.

DRIVER, a large sail occasionally set upon the mizen-yard or gaff, the foot being extended by a boom considerably over the stern, in the manner of a cutter's main-sail. It is sometimes fitted to hoist with a half yard to the peek, like a lower studding-sail, as fig. 64, pl. 5, the fore-leech is laced down the mizen-mast.

DRIVER-*boom*, the boom on which the preceding article is extended.

DROP, a name sometimes given to the depth of the square sails; as, "Her main top-sail drops seventeen yards."

To DROP *astern*, to cause one vessel to slacken her velocity, so as to suffer another to pass beyond her.

To DROP *anchor*, is to fasten the ship by letting go an anchor into the ground.

DUCK, the finest canvas for sails is sometimes so called.

DUCKING *at the yard arm*, a kind of marine punishment unknown, except by name, in the British Navy.

DUCKING, is a penalty which veteran sailors inflict on those who for the first time pass the tropics or the equator, and is usually performed in a match tub or half butt, with the assistance of a few buckets of water: the usual fine will, however, always prevent the penalty being inflicted.

DUNNAGE, a quantity of faggots, boughs of trees, or other loose wood laid in the bottom of a ship, either to raise the heavy goods which might make her too stiff, or to keep the cargo sufficiently above the bottom, that it may sustain no damage from the water, if the ship should prove leaky.

EARINGS,

E.

EARINGS, *r r r r*, fig. 63, pl. 4, small ropes employed to fasten the upper corners of a sail to its respective yard, for which purpose one end of the earing is *spliced* to the *cringle* fixed in that part of the sail, and the other end is passed five or six times round the yard-arm and through the cringle; the two first turns which are intended to stretch the head of the sail tight along the yard, are passed beyond the *lift* and rigging on the yard-arm, and are called *outer* turns, while the rest which draw it close up to the yard, and are passed within the lift, &c. are called *inner* turns.

Note, that every *reef* on a yard has its respective *earings* which are passed in the same manner.

EASE *the ship*, the command given to the steersman to put the helm close to the lee side; or, in the sea phrase, hard alee, when the ship is expected to pitch or plunge her fore part deep in the water, while close hauled.

To EASE *off*, or EASE *away*, to slacken any rope gradually.

EBB, the reflux of the tide, or the return of it back from the highest of the flood, usually termed full sea or high water.

EDDY, the water that by some interruption in its course, runs contrary to the direction of the tide or current.

To EDGE *away*, to decline gradually from the shore, or from the line of the course which the ship formerly steered; it is particularly applied when a ship changes her course by sailing *larger*, or more *afore* the wind than she had done before.

ELBOW *in the hawse*, is when a ship being moored in a tideway, swings twice the wrong way, thereby causing the cables to take half a round turn on each other. See HAWSE.

St.

St. ELMO'S *fire.* See CORPOSANT.

EMBARGO, an arrest laid on ships or merchandize by public authority, or a prohibition of state, sometimes general to prevent all ships departing, and sometimes partial or particular, as upon foreign ships only, or to prevent their coming in.

EMBAYED, the situation of a ship when she is enclosed between two capes or promontories; it is particularly applied when the wind, by blowing strongly into any bay or gulph, makes it extremely difficult and perhaps impracticable for the vessel thus inclosed to claw off from the shore, so as to weather the capes.

ENGAGEMENT, in a naval sense, implies a battle at sea, or an action of hostility between single ships, squadrons, or fleets of men of war; the whole economy of a naval engagement may be arranged under the following heads, viz. the *preparation*, the *action*, and the *repair*, or *refitting*, for the purposes of navigation.

The preparation is begun by issuing the order to *clear ship for action*, which is repeated by the boatswain and his mates at all the *hatchways*; every sailor repairs immediately to his hammock (if they are not already stowed) and having placed his bedding properly, he cords it up firmly with a lashing or line provided for that purpose, and, at the next summons of the boatswain, *up all hammocks!* he carries it to the quarter-deck, poop, forecastle, gangways, or tops; at these different places they are firmly stowed in proper nettings on each side so as to form an excellent barrier against small shot.

In the mean time the boatswain and his mates are employed in securing the sail-yards with strong chains and additional ropes, and in providing the necessary materials to repair the rigging wherever it may be damaged by the enemy's shot; the carpenter and his crew are preparing shot-plugs to stop any holes that may be made in the ship's side near the surface of the water; and the gunner, with his mates and quarter-

quarter-gunners, are busied in examining the cannon of the different batteries, and in preparing a sufficient number of cartridges, to supply the place of those expended in battle; the master and his mate are attentive to the sails, and the lieutenants visit the different decks to see that they are effectually cleared of all incumbrance, all the chests being put down in the orlop, and the bulk-heads, canvas,-births, &c. taken down and stowed in the hold; the surgeon and his mates, assisted by the chaplain and purser, are preparing in the cock-pit, for the reception, relief, and comfort of the wounded.

When the hostile ships have approached each other to a competent distance, the drums beat to arms, and the boatswain and his mates pipe *all hands to quarters* at every hatchway, all persons immediately repair to their respective stations: the lashings of the guns are cast loose, and the tompions taken out; the train-tackles are hooked, the crows, handspikes, rammers, spunges, and powder-horns are placed in order by the side of every cannon: the matches are lighted, the guns primed, and, if necessary, the whole artillery, above and below, is run out at the ports and levelled to the point-blank-range.

These preparations being completed, the commencement of the action is determined by the mutual distance and situation of the adverse ships, or by the signal from the commander in chief of the fleet or squadron; the combat usually begins by a vigorous cannonade, accompanied (if near enough) with the whole efforts of the swivels, carronades, and small arms, every one loading and firing with all possible expedition, but without confusion or precipitation; the havoc, produced by a continuation of this mutual assault, may be readily conjectured; if the enemy's ship is defeated she endeavours to escape by making sail, but, if that is found impracticable, she acknowledges the victory by striking her colours, and is, if possible, immediately taken possession of by the conqueror,

queror, who secures the officers and crew as prisoners in his own ship, and invests his principal officer, with the command of the prize until a captain is appointed: the engagement being concluded, the cannon are again secured, the unserviceable sails are unbent, the lower masts, if wounded, are fished, and the top-masts replaced by others, the standing rigging is knotted, and the running rigging spliced wherever necessary; the carpenter and his crew are employed in repairing the breaches made in the ship's hull; and the gunner and his assistants in refitting the furniture of the cannon, and filling up the allotted number of cartridges.

To let a rope run END FOR END, is to let it pass entirely out of the block through which it was reeved.

To shift a rope END FOR END, is to change the ends to contrary uses; as in a tackle the *fall* is made the *standing part*, and the *standing part* becomes the *fall*.

END-ON, spoken of a ship when only her bows and head sails are to be seen.

ENSIGN, a large flag or banner, hoisted on a long pole, erected over the stern, and called the ensign-staff; the ensign is used to distinguish the ships of different nations from each other, as also to characterize the different squadrons of the navy; it was formerly written ANCIENT.

To ENTER, to enrol, or to engage for service.

ENTERING PORTS, ports cut down on the middle gun-deck of three-deckers, to serve as doors for persons going in or out of the ship.

ENTERING *ropes*, or *side ropes*, three ropes hanging from the upper part of the ship's side, or from the entering ports on the right, left, and middle of the steps. See GANGWAY.

ENTRANCE, a name frequently given to the foremost part of the ship under the surface of the sea.

EPHEMERIS, a nautical almanack.

EQUATOR, an imaginary line on the earth, dividing the globe into two equal parts, and equally distant from both poles. EQUINOCTIAL.

EQUINOCTIAL. See the preceding article.

EQUINOCTIAL *gales*, storms which are observed generally to take place about the time of the sun's crossing the equator or equinoctial line, at which time there is equal day and night throughout the world.

To EQUIP, a term frequently applied to the business of fitting a ship for sea, or arming her for war. See FITTING.

ESCUTCHEON, the compartment in the middle of the ship's stern where her name is written.

EXERCISE, the preparatory practice of managing the artillery and small arms, in order to make the ship's crew perfectly skilled therein, so as to direct its execution successfully in the time of battle.

EXERCISE may also be applied with propriety to the forming a fleet into orders of sailing, lines of battle, &c. by signals, an art which the French have termed *evolutions*, or *tactiques*.

EYE *of a block strop*, is that part by which it is fastened or suspended to any particular place upon the sails, masts, or rigging; the eye is sometimes formed by making two eye-splices on the ends of the strop, and then fastening them together with a small line, so as to bind round a mast, yard, or boom.

EYE *of a stay*, that part of a stay which is formed into a sort of collar to go round the mast-head.

EYE-BOLT, a long bar of iron, with an eye in one end of it, formed to be driven into the decks, sides, &c. for the purpose of hooking tackles to.

EYE-LET-HOLES, round holes worked in a sail to admit a small rope through, chiefly the robings (or rope-bands), and the points or reef-line.

EYES *of a ship*, a name frequently given to those parts which lie near the hawse-holes, particularly in the lower apartments within the vessel.

EYE-SPLICE. See SPLICE.

Flemish-EYE, is a phrase particularly applied to the eye of a stay, which is either formed at the making of the rope, pl. 8, fig. 117; or by dividing the yarns into two equal parts, knotting each pair separately and pointing the whole over, fig. 118, p. 18.

F.

FACTOR, in commerce, an agent residing beyond the seas, or in some remote part, commissioned by merchants to buy or sell goods on their account; hence,

FACTORY is a place where a considerable number of *factors* reside.

FAG-END, the end of any rope which is become untwisted and loosened by frequent use; to prevent which the ends of ropes are wound round with a piece of *twine* or packthread, which operation is called *whipping*.

To FAG-OUT, to become untwisted and loose.

FAIR, a general term for the disposition of the wind when it is favourable to a ship's course, in opposition to what is contrary or foul.

FAIR is also applied to ropes as suffering the least friction in a pulley, when they are said to *lead fair*.

FAIR-CURVE, in delineating ships, is a winding-line whose shape is varied according to the part of the ship it is intended to describe.

FAIR-WAY, the channel of a narrow bay, river, or harbour, in which ships usually pass in their way up and down; so that if any vessels are anchored therein they are said to lie in the fair way.

FAKE, one of the circles or windings of a cable or hawser, as it lies disposed in a coil. See COILING.

FALL, the loose end of a tackle, or that part on which the people pull to produce the desired effect.

To FALL *aboard*. See ABOARD.

To FALL *astern*, to be driven backwards; also spoken of two ships sailing together, if one goes faster than the other the latter is said to fall astern.

To FALL *calm*, speaking of the weather, implies a state of rest by a total cessation of the wind.

To FALL *down*, to sail or be conducted from any part of a river to some other part nearer to its mouth or opening.

FALLING-OFF, the movement or direction of the ship's head to leeward of the point whither it was lately directed, particularly when she sails near the wind, or lies by.

FALLING *off*, is also the angle contained between her nearest approach to the direction of the wind, and her farthest declination from it when TRYING.

To FALL *in with*, to meet, when speaking of a ship; to discover, when of the land.

Cat FALL. See CAT.

FALSE *fire*, BLUE FLAMES, a composition of combustibles, filled into a wooden tube, which, upon being set fire to, burns with a light blue flame for half a minute; they are principally used as signals during the night.

FASHION-PIECES, the aftmost or hindmost timbers of a ship, which terminate the breadth, and form the shape of the stern; they are united to the stern-post and to the extremity of the wing transom by a rabbit, and a number of strong nails or spikes driven from without.

To FASTEN, to tie a rope or to make it secure.

FATHOM, a measure of six feet, used to regulate the length of the cables, rigging, &c. and to divide the lead (or sounding) lines, &c.

To FAVOUR, to be careful of, also to be fair for.

To FAY, to fit any two pieces of wood so as to join close together; the plank is said to fay to the timbers when it bears or lies close to them all.

FELUCCA, a small vessel navigated in the Mediterranean, with oars and lateen sails.

To FEND-OFF, is, by the application of a boat-hook (or any other such means of decreasing the velocity) to prevent a boat or vessel running against another, or against a wharf, &c. with too much violence.

FENDERS,

FENDERS, certain pieces of old cable, timber, or other materials, hung over the side of a vessel to prevent it from striking or rubbing against a wharf or key; as also to preserve a small vessel from being damaged by a large one.

To FETCH, to attain, as, "we shall fetch to windward of the light-house this tack."

To FETCH *way*, to be shaken or agitated from one side to another; it is usually applied to a mast, bowsprit, &c. when it is not sufficiently wedged, being loose in the partners; it is also said of a box, cask, or such body, which moves by the rocking of the ship at sea, as not being well secured and inclosed.

FETCHING *the pump*, the act of pouring a cann of water into the upper part of it, in order to make the upper box or piston air-tight, by swelling the wood of the box, and rendering the leather of the valve moist and pliable. See PUMP.

FID, a square bar of wood or iron, with a shoulder at one end, used to support the weight of the top-mast when erected at the head of the lower-mast, by passing through a mortise or hole at the lower end of the former, and resting its ends on the trestle-trees which are sustained by the head of the latter; the fid, therefore, must be withdrawn every time the mast is lowered; the top-gallant-mast is retained at the head of the top-mast in the same manner. See MAST.

FID is also a pin of hard wood, tapering to a point, used to open the strands of a rope in splicing: of these some are large for splicing cables, and some small for bolt-ropes of sails, &c.

FIELD *of ice*, a large body of ice floating at sea.

FIFE-RAILS. See RAILS.

Sea FIGHT. See ENGAGEMENT.

To FILL, to brace the sails in such a manner as that the wind, entering their cavities from behind, dilates them so as to advance the ship in her course, after the sails had for some time been shivering, or braced aback.

FILLING

FILLING *a ship's bottom*, implies the driving a number of nails with broad heads into her so as to give her a sheathing of iron, to prevent the worms from getting into the wood; this operation is now much disused, the sheathing with sheets of copper being found far superior to it.

FIRE, the order to put the match to the priming, or pull the trigger of a cannon or other fire-arm, so as to discharge it.

FIRE *arrow*, a dart formerly used by privateers and pirates, to set fire to the sails of the enemy in battle.

FIRE *ship*, a vessel filled with combustible materials, and fitted with grappling-irons, to hook and set fire to the enemy's ships.

FISH, a machine employed to hoist and draw up the flukes of a ship's anchor towards the top of the bow, in order to stow it after it has been *catted*; it is composed of four parts, viz. the pendant, the block, the hook, and the tackle, which, with their uses, are described under the article DAVIT.

FISH is also a long piece of timber, convex on one side and concave on the other, used to strengthen the lower masts, or the yards when they are *sprung*, or have received some damage in battle, or in tempestuous weather, &c. to effect which they are well secured by stout rope called *woolding*.

FISH *gig*, an instrument used to strike fish at sea; it consists of a staff with three, four, or more barbed prongs of steel, and a line fastened to the end on which the prongs are fixed, fig. 50, pl. 2. to the other end is fitted a piece of lead, which gives additional force to the stroke, and causes the points to turn upwards after the fish is penetrated.

FITTING-OUT, the act of furnishing a ship with sufficient masts, sails, yards, ammunition, artillery, cordage, anchors, provisions, stores, and men, for the voyage or purpose to which she is appointed.

FISH-ROOM, a space between the after-hold and the spirit-room.

FLAG,

FLAG, a certain banner by which an admiral is distinguished at sea from the inferior ships of his squadron; also the colours by which one nation is distinguished from another.

The first flag in Great-Britain is the royal standard, which is only to be hoisted when the King or Queen are on board the vessel; the second is that of the anchor of hope, which characterises the Lord High Admiral, or lords commissioners of the admiralty; and the third is the union flag, appropriated to the admiral of the fleet, who is the first military officer under the Lord High Admiral. The Navy-Board, Custom-House, &c. have each their respective flags.

When the flag is displayed at the main-top-gallant-mast-head, the officer distinguished thereby is known to be an admiral; when from the fore-top-gallant-mast-head, a vice-admiral; and when from the mizen-top-gallant-mast-head, a rear-admiral; the next flag after the union is white at the main; and the last, which characterizes an admiral, is blue at the same mast-head.

For a vice-admiral the first flag is red, the second white, and the third blue, at the fore-top-gallant-mast-head. The same order is observed with regard to rear-admirals, whose flags are displayed at the mizen-top-gallant-mast-head; the lowest flag in our navy is accordingly blue at the mizen.

Note.—All the white flags have a red St. George's cross in them, in order the more readily to be distinguished from the French white flag.

FLAG *officer*, a term synonymous to admiral.

FLAG *ship*, a ship in which an admiral's flag is displayed.

FLAG *staff*, is generally a continuation of the top-gallant-mast above the top-gallant rigging, but is sometimes, especially in guard-ships, a spar, occupying the place of the top-gallant-mast, and is only of use to display the flag or pendant; when it is a continuation of the top-gallant-mast it is frequently termed the royal mast, as d, fig. 66, pl. 6.

FLAKE, a sort of platform made of hurdles, used for drying codfish in Newfoundland; they are usually placed near the shores of fishing-harbours.

FLAT, a level ground lying at a small depth under the surface of the sea; otherwise called a SHOAL, or SHALLOW.

To FLAT *in*, the action of drawing in the aftmost clue of a sail towards the middle of a ship, to give the sail the greater power of turning the vessel; thus, if the mizen or after sails are flatted in, it is evident that the intention is to carry the stern to leeward, and turn the head nearer to the direction of the wind; and if the head-sails are flatted in, the intention is accordingly to make the ship *fall off*, when, by design or accident, she has come so near the wind as to make the sails shiver; hence—

FLAT *in forward* is the order to draw in the jib and fore-top-mast stay-sail sheets towards the middle of the ship; this operation is seldom necessary, except in light breezes of wind, when the helm has not sufficient government of the ship.

FLAW, a sudden breeze or gust of wind.

FLEET, a general name given to the British navy; it also denotes any number of ships, whether designed for war or commerce, keeping company together.

FLEETING, the act of changing the situation of a tackle when the blocks are drawn together; also of changing the position of the dead-eyes, when the shrouds are become too long, which is done by shortening the shroud and turning in the dead-eye, again higher up; the use of fleeting is accordingly to replace the mechanical powers in a state of action, the force by which they operated being destroyed by the meeting of the blocks or dead-eyes.

FLOAT, a raft or quantity of timber fastened together, to be driven along a river by the tide or current.

FLOATING, the state of being borne up or wafted along with the tide on the surface of the water.

FLOOD,

FLOOD, the flux of the tide, or the time the water continues rising.

FLOOR, the bottom of a ship, or all that part on each side of the keel, which approaches nearer to an horizontal than a perpendicular situation, and whereon she rests when aground; thus we say, "a sharp floor, a flat floor, a long floor, &c.

FLOOR *timbers*, are those parts of the ship's timbers which are placed immediately across the keel, and upon which the bottom of the ship is framed; to these the upper parts of the timbers are united.

FLOWING, the position of the *sheets* or lower corners of the principal sails when they are loosened to the wind, so as to receive it more nearly perpendicular than when they are *close hauled*, although more obliquely than when going before the wind; a ship is therefore said to have a flowing sheet, when the wind crosses the line of her course nearly at right angles.

FLUKES. See ANCHOR.

FLURRY, a light breeze of wind shifting to different places, and causing a little ruffling on the calm surface of the sea.

FLUSH. See DECK.

FLY *of an ensign, pendant*, &c. the breadth or extent from the staff to the extreme edge or end that flutters loose in the wind.

FLY-*boat*, a large flat-bottomed Dutch vessel whose burthen is generally from 4 to 600 tons; it is distinguished by a stern remarkably high, and by very broad buttocks below.

To let FLY *the sheets*, is to let them go suddenly.

FOG-*bank*, an appearance in hazy weather, which frequently resembles land at a distance, but which vanishes as you approach it.

FOOT *of a sail*, the lower edge, or bottom.

FOOT-*rope*, the rope to which the lower edge of a sail is sewed. See BOLT-*rope*.

FOOT-*ropes*, are also the same with HORSES, which see.

FOOT

FOOT-*waling*, the whole inside planks or lining of a ship, used to prevent any part of her ballast or cargo from falling between the floor timbers.

FOOT *of a mast*, the lowest end, or that which goes into the step.

To FOOT, to push with the feet, as "Foot the topsail out of the top."

FORE, the distinguishing character of all that part of a ship's frame and machinery which lies near the stem.

FORE and AFT, throughout the ship's whole length, or from end to end; it also implies, in a line with the keel.

FORE *bow-line*, the bow-line of the fore-sail. See BOW-LINE.

FORE CASTLE, a short deck placed in the fore part of a ship above the upper-deck; it is usually terminated both before and behind in vessels of war by a breast-work, the foremost part forming the top of the beak-head, and the hind part reaching to the after part of the fore chains.

FORE-*castle men*, sailors who are stationed on the fore-castle, and are generally prime seamen.

FORE *catharpings*, a complication of ropes used to brace in the upper part of the fore shrouds. See CATHARPINGS.

FORE *braces*, ropes applied to the fore yard-arms to change the position of the foresail occasionally.

FORE-*foot*, a piece of timber which terminates the keel at the fore end; it is connected by a scarf to the extremity of the keel, and the other end of it which is incurvated upwards into a sort of a knee, is attached to the lower end of the stem; it is also called a *gripe*.

FORE *hooks*, the same with BREAST-*hooks*, which see.

FORE-*land*, a cape or promontory projecting into the sea; as the North and South Forelands.

FORE-*lock*, a little flat pointed wedge of iron, used to drive through a hole in the end of a bolt, to retain it firmly in its place.

FORE-*jears*,	See	JEARS,
FORE-*mast*,		MAST,
FORE-*sail*,		SAIL,
FORE-*shrouds*,		SHROUDS,
FORE-*stay*,		STAY,
FORE-*top*,		TOP,
FORE-*topmast*,		TOP-MAST,
FORE-*top-gallant-mast*,		TOP-GALLANT-MAST,
FORE-*tye*,		TYE,
FORE-*yard*, &c. &c.		YARD, &c. &c.

N.B. For the yards, sails, rigging, &c. of the TOP-MAST, and TOP-GALLANT-MAST, see those two articles.

FORE-*tackle*, a tackle on the fore-mast, similar to the MAIN-TACKLE, which see. It is used for similar purposes, and also in *stowing* the anchor, &c.

FORE-*top-men*, men stationed in the fore-top in readiness to set, or take in the smaller sails, and to keep the upper rigging in order.

FORE *Cockpit*. See COCKPIT.

FORE *light room*. See LIGHT ROOM.

FORE *magazine*. See MAGAZINE.

FORE *reaching upon*, the act of advancing upon, or gaining ground of, some other ship or ships in company.

FORE *runner of the log line*, a small piece of red buntin, laid into that line at a certain distance from the log, the space between them being called the *stray-line*, which is usually from twelve to fifteen fathoms, and is an allowance for the log to be entirely out of the ship's dead water, before they begin to estimate the ship's velocity, consequently the knots begin from that point. See LOG.

FORGING *over*, the act of forcing a ship violently over a shoal, by the effort of a great quantity of sail.

FORMING *the line*. See LINE.

FORMING *the order of sailing*. See SAILING.

FORMER, a small cylindrical piece of wood, on which musket or pistol cartridges are made.

FORT,

FORT, a small fortified place environed on all sides with a moat, rampart, and parapet.

FORWARD, towards the fore part of the ship. See AFORE.

FOTHERING, a peculiar method of endeavouring to stop a leak in the bottom of a ship, while she is afloat either at sea or at anchor, which is performed by fastening a sail at the four corners, letting it down under the ship's bottom, and then putting a quantity of chopped rope-yarns, oakum, wool, cotton, &c. between it and the ship's side; by repeating the latter part of this operation several times, the leak generally sucks in a portion of the loose stuff, and thereby becomes partly and sometimes wholly stopped. Some persons prefer thrumming the sail instead of letting down the loose stuff, but in this mode the sail is soon chafed through by the hole, if the leak is considerable, without affording sufficient substance to stop it.

FOUL, is generally used in opposition to clear and implies entangled, embarrassed, or contrary to; as "a ship ran foul of us," that is, entangled herself among our rigging.

FOUL *bottom*, denotes a bottom covered with grass, seaweed, shells, or other filth, which gathers and adheres to it.

FOUL *ground* and FOUL *coast*, signifies rocky or abounding with shallows, or otherwise dangerous.

FOUL *hawse*, means that the cables are turned round each other, by the ship having swung the wrong way when moored. See ELBOW and HAWSE.

FOUL *rope*, a rope entangled and unfit for immediate service.

FOUL *anchor*, implies that the cable is twisted round the stock, or one of the flukes, and thereby endangers the ship's drifting.

FOUL *wind*, is used to express that the wind is unfavourable, or contrary to the ship's course, as opposed to *large* or *fair*.

FOUL *water*, is water troubled and rendered turbid by the ship's bottom rubbing on the ground.

To FOUNDER, to sink or go down.

FOX, is formed by twisting several rope-yarns together, and is used for a *seizing*, or to weave a paunch, or mat, &c.

Spanish FOX, is a single rope-yarn untwisted, and then twisted up the contrary way and rubbed smooth. It is used for small seizings.

FRAME. See TIMBER.

FRAPPING, the act of crossing and drawing together the several parts of a tackle, or other complication of ropes, which had already been strained to their utmost extent: in this sense, it exactly resembles the operation of bracing up a drum. The frapping encreases the tension, and consequently adds to the security acquired by the purchase: hence the catharpings are no other than frappings to the shrouds.

FRAPPING *a ship*, the act of passing four or five turns of a large cable-laid rope, round the hull or frame of a ship in the middle, when it is apprehended that she is not strong enough to resist the violent efforts of the sea.

Going FREE. See SAILING *large*.

FREEING, the act of pumping, or otherwise throwing out the water which has leaked into a ship's bottom, at sea, &c.

FREEZING, ornamental painting or sculpture on the upper part of a ship's quarter, stern, or bow. It consists generally of armour, instruments of war, marine emblems, &c.

FREIGHT *of a ship*, the hire or a part thereof, usually paid for the carriage and conveyance of goods; or the sum agreed upon between the owner and the merchant for the hire and use of a vessel.

FREIGHT, also implies the lading or cargo, which she has on board.

FRESH, when applied to the wind, signifies strong, but not violent or dangerous; hence, when the gale increases, it is said to *freshen*.

FRESH *water*, implies water fit to drink, in opposition to sea or salt water.

FRESH *way of a ship*, implies a considerable velocity.

To FRESHEN *hawse*, to relieve that part of the cable which has for some time been exposed to friction in one of the hawse-holes, when the ship rocks and pitches at anchor in a high sea; this is done by applying fresh service to the cable within board, and then veering it into the hawse: See SERVICE.

FRESHES, imply the impetuosity of an ebb-tide, increased by heavy rains and flowing out into the sea, which it often discolours to a considerable distance from the shore, insomuch as the line which divides the two colours may be perceived distinctly for a great length along the coast.

FRIGATE in the Navy, a light nimble ship built for the purpose of sailing swiftly. These vessels mount from twenty to forty-four guns, and make excellent cruizers.

FRIGATE-*built*, the disposition of the decks of such merchant ships as have a descent of four or five steps from the quarter-deck and forecastle into the waist, in contradistinction to those whose decks are on a continued line for the whole length of the ship, which are called *galley*-built. See DECK.

Formerly the name of frigate was only known in the Mediterranean, and applied to a kind of long vessels navigated in that sea with sails and oars. The English were the first who appeared on the Ocean with those ships, and equipped them for war as well as commerce.

FULL *and by*, the situation of a ship with regard to the wind, when she is close-hauled, and sailing in such a manner as neither to steer too nigh the direction of the wind, nor to deviate from it: or it is when a ship is as close as she will lie to the wind without suffering the sails to shiver; hence, *Keep her* FULL, is the order to the helmsman, not to incline too much to windward, and thereby shake the sails which would retard the ship's velocity.

FURL-

FURLING, the operation of wrapping or rolling a sail close up to the yard, stay, or mast, to which it belongs, and winding a gasket or cord about it; to fasten it thereto.

FURLING *in a body*, is a particular method of rolling up a top-sail only practised in harbour, and is performed by gathering all the loose part of the sail into the top about the heel of the top-mast, whereby the yard having as little rolled on it as possible, appears much thinner and lighter than when the sail is furled in the usual manner, which is sometimes termed, for distinction sake, *furling in the bunt*.

FURLING-*line*, denotes a cord employed in this operation; they are generally flat, and are known by the name of *gaskets*.

FUSE. See MORTAR.

FUTTOCKS, the middle division of a ship's timbers, or those parts which are situated between the floor, and the top timbers.

FUTTOCK-*shrouds*. See SHROUDS.

G.

GAFF, a sort of boom, used in small ships, to extend the upper edge of the mizen, and employed for the same purpose, on those sails whose foremost edges are joined to the masts by hoops or lacings, and which are usually extended by a boom below; such are the main-sails of sloops, brigs, and schooners. The foremost end of the gaff is furnished with two cheeks forming a semicircle, which enclose the after part of the mast, and is secured in this position by a rope passing from one of the cheeks to the other on the fore side of the mast, on which are strung several small wooden balls, called *trucks*, to lessen the friction of the rope on the mast when the sail is hoisting or lowering.

GAFF *haliards*. See HALIARDS.

GAFF *top-sail*, is a light quadrilateral sail, the head being extended on a small gaff, which hoists on the top-mast, and the foot spreading from the throat to the peek, or the extent of the lower gaff.

GAGE. See WEATHER-GAGE.

To GAIN *the wind*, to arrive on the weather side, or to windward of some other vessel, when both are plying to windward, or sailing as near the wind as possible.

GALE *of wind*, implies a storm or tempest, more particularly termed, a

Hard GALE, or *strong* GALE.

A stiff GALE, is rather the diminutive of the preceding article.

A fresh GALE, is a still further diminutive, and may be considered as not too strong for a ship to carry single reefed top-sails in it when close hauled.

A top-

A top-gallant GALE, is a wind in which a ship may carry her top-gallant sails.

GALEON, a name formerly given to ships of war furnished with three or four batteries of cannon. It is now retained only by the Spaniards, and applied to the largest size of their merchant ships employed in West-Indian voyages, and usually furnished with four decks. They likewise bestow the same name on those vessels, whether great or small, which proceed annually to La Vera Cruz.

GALLED, the state of a mast, yard, cable, or other rope, when it is deprived of its surface by friction; to prevent which it is usual to cover them with skins, mats, canvas, or such materials, in the places where they are most exposed to it. See SERVICE.

GALLERY, a balcony, projecting from the stern or quarter of a ship of war, or of a large merchantman.

Stern-GALLERY, that part of the preceding article which is wholly at the stern of the ship, and is usually decorated with a balustrade extending from one side of the ship to the other; the fore part is limited by a partition, called the *skreen-bulkhead*, in which are framed the cabin windows, and the roof of it is formed by a sort of vault, termed the *cove*, which is frequently ornamented with sculpture. See STERN.

Quarter-GALLERY, is that part which projects on each quarter, and is generally fitted up as a water-closet.

Ships of 20 guns and upwards, on one deck, have quarter-galleries, but no stern-gallery; two and three-deckers have two or three of these conveniences on each side, one under the other, and one or two stern-galleries.

GALLEY, a kind of low flat-built vessel, furnished with one deck, and navigated with sails and oars, particularly in the Mediterranean. The largest sort of these vessels were formerly employed by the Venetians, they were about 162 feet long above, and 133 feet by the keel, 32 feet wide, and 23 feet length of stern-post. They were furnished with three masts,

and thirty-two banks of oars, each bank containing 2 oars, and every oar being managed by 6 or 7 slaves, who were usually chained thereto. In the fore part they had three small batteries of cannon, viz. two 36-pounders, two 24-pounders, and two 2-pounders; they had also three 18-pounders on each quarter, and carried from 1000 to 1200 men. They were found, however, by experience, to be of little utility, except in fine weather.

GALLEY, is also the name of the cook-room, or kitchen, of a ship of war. In East-India ships it is generally termed the cook-room, and on board of merchantmen it is called the caboose.

Half-GALLEY, is a vessel from 120 to 130 feet long, 18 feet broad, and 9 or 10 feet deep, having two masts, which may *be struck*, or lowered flat on deck, at pleasure, carrying two large lateen sails, and five pieces of cannon; they have commonly 25 banks of oars.

Quarter-GALLEY, is of still less dimensions, carrying from 12 to 16 banks of oars: all of these vessels generally keep close under the shore, but sometimes venture out to sea to perform a summer cruize.

GALLEY, is also a name given to an open boat, rowing six or eight oars, and used on the river Thames by custom-house officers, press-gangs, and also for pleasure; hence the appellation of custom-house-galley, press-galley, &c.

GALLEY-SLAVE, a person condemned to work at the oar on board a galley, for a term of years, or for life, being chained to the deck, as above described.

GALLING-FIRE, a repeated discharge of cannon, or small arms, which, by its execution, greatly annoys the enemy.

GALLIOTT, a Dutch vessel, carrying a main and a mizen-mast, and a large gaff-main-sail.

GALLOWS-BITTS, is a strong frame of timber, in form of a gallows, forming a support for the spare top-masts, yards, and booms.

GAM-

GAMMONING, seven or eight turns of a rope, passed over the bowsprit and through a large hole in the stem or knee of the head, alternately, and serving to bind the inner quarter of the bowsprit close down to the ship's stem, in order to enable it the better to support the stays of the fore-mast; after all the turns are drawn as firm as possible, the opposite ones are braced together under the bowsprit by a frapping.

GANG, a select number of a ship's crew appointed on any particular service, and commanded by an officer suitable to the occasion.

GANG-BOARD, a plank or board, with several cleats or steps nailed to it, for the convenience of walking into or out of a boat upon the shore, where the water is not deep enough to float the boat close to the landing-place.

GANGWAY, a narrow platform, or range of planks, laid horizontally along the upper part of a ship's side, from the quarter-deck to the forecastle, and is peculiar to ships that are deep waisted; it is fenced on the outside by iron stanchions, and ropes or rails, and in vessels of war with a netting, in which a part of the hammocks are stowed. See ENGAGEMENT.

GANGWAY, is also that part of a ship's side, both within and without, by which persons enter and depart; it is provided with a sufficient number of steps or cleats, nailed upon the ship's side, nearly as low as the surface of the water, and sometimes furnished with a railed accommodation-ladder, resembling a flight of stairs projecting from the ship's side, and secured by iron braces.

GANGWAY, is also used to signify a passage left in the hold, when a ship is laden. Finally,

GANGWAY, implies a thoroughfare or narrow passage of any kind.

To bring to the GANGWAY, a phrase, signifying to punish a seaman by seizing him up and flogging him with a cat-o'-nine-tails.

GAR-

GARLAND, a sort of net, whose opening is extended by a wooden hoop, of sufficient size to admit a bowl or platter within it; it is accordingly used by sailors as a locker or cupboard, to contain their provisions, being hung up to the beams within the birth.

GANTLOPE, or GANTLET, a race which a criminal is sentenced to run in a vessel of war, as a punishment for felony, or some other heinous offence. It is executed in the following manner:—the whole ship's crew is disposed in two rows, standing face to face on both sides the deck, so as to form a line whereby to go forward on one side and aft on the other, each person being furnished with a small twisted cord called a *knittle*, having two or three knots upon it; the delinquent is then stripped naked above the waist, and ordered to pass forward between the two rows of men on one side and aft on the other side, a certain number of times, rarely exceeding three, during which every person gives him stripes as he runs along; in his passage he is sometimes tripped up and severely handled while incapable of proceeding; this punishment, which is called *running the gantlet*, is seldom inflicted except for such crimes as naturally excite general aversion amongst the seamen.

Shot GARLAND, a piece of timber nailed horizontally along the ship's side from one gun-port to another, and fitted with several hemispherical cavities to contain the round-shot ready for charging the great guns in battle.

GARNET, a sort of tackle fixed to the main-stay of a merchant ship, and used to hoist the cargo in and out.

Clue GARNET. See CLUE.

GARBOARD-STREAK, the first range or streak of planks laid upon a ship's bottom, next the keel, throughout the whole length of the floor.

GASKET, a sort of plaited cord fastened to the sail-yards of a ship, and used to furl or tie up the sail firmly to the yard by wrapping it round both.

Bunt

Bunt GASKET, is that which supports or ties up the bunt of the sail, and should consequently be the strongest, as having the greatest weight to support; it is sometimes made in a peculiar manner.

Quarter GASKET, used only for large sails, and is fastened about half-way out upon the yard, which part is called the quarter.

The yard-arm GASKET is made fast to the yard-arm, and serves to bind the sail as far as the quarter-gasket on large yards, but extends quite into the bunt of small sails.

To GATHER *aft a sheet*, is to pull it tight in.

To GATHER *way*, to increase the velocity.

GEARS, See JEARS.

GIMBALS, the brass rings by which a sea-compass is suspended in its box, so as to counteract the effect of the ship's motion, and keep the card horizontal. See COMPASS.

GIMBLETING, a term applied to the anchor to denote the action of turning it round by the stock.

GIRT, the situation of a ship which is moored so tight by her cables, extending from the hawse to two distant anchors, as to be prevented from swinging or turning about.

GIRT-*line*, a rope passing through a single block on the head of the lower masts, to hoist up the rigging thereof, and the persons employed to place the rigging and cross-trees on the mast-heads; the girt-line is, therefore, the first rope employed to rig a ship, after which it is removed till the ship is to be unrigged.

GIVE *way*, is the order to a boat's crew to row after having ceased for a short time, or to increase their exertions if they were before rowing.

GIVE *way together*, implies that the men should keep time together in rowing, so as that the oars should all dip and rise together, whereby their several forces are exerted as one.

GLASS, is the usual appellation for a telescope.

Night

Night-GLASS, a telescope made for viewing objects at night.

Half-hour-GLASS, frequently called the WATCH-GLASS, is used to measure the time which each watch has to stay upon deck.

Half-minute and quarter-minute-GLASSES, are used to ascertain the rate of the ship's velocity, measured by the log; these glasses should be frequently compared with a good stop watch, to determine exactly how many seconds they run.

To flog or *sweat the* GLASS, is, to turn it before the sand has run quite out, and thereby gaining a few minutes in each half hour, make the watch too short.

GLASS is used in the plural, to denote the duration of any action; as, they fought yard-arm and yard-arm three glasses, i. e. three half hours, or an hour and a half.

GONDOLA, a sort of barge, curiously ornamented and navigated on the canals of Venice; also a passage-boat of six or eight oars, used on other parts of the coast of Italy.

GONDOLIER, a man who works or navigates a gondola.

GOOGINGS, certain clamps of iron or other metal, bolted on the stern-post of a ship, whereon to hang the rudder, for which purpose there is a hole in each of them to receive a correspondent spindle, bolted on the back of the rudder, which turns thereby as upon hinges. See HELM.

GOOSE-NECK, a sort of iron hook fitted on the inner end of a boom, and introduced into a clamp of iron or eye-bolt, which encircles the mast, or is fitted to some other place in the ship, so that it may be unhooked at pleasure.

GOOSE *wings of a sail*, the clues or lower corners of a ship's main-sail or fore-sail, when the middle part is furled or tied up to the yard.

The *goose wings* are only used in a storm to scud before the wind when the sail, even diminished by a reef, would be too great a press on the ship.

GORING,

GORING, or GORING-CLOTH, that part of the skirts of a sail where it gradually widens from the upper part or head, towards the bottom or foot; the goring-cloths are, therefore, those which are cut obliquely and added to the breadth.

GRAPE-SHOT. See SHOT.

GRAPNEL, or GRAPLING, a sort of small anchor fitted with four or five flukes or claws, and commonly used to fasten boats or other small vessels. Fig. 68, pl. 6.

Fire GRAPLING, an instrument nearly resembling the former, but differing in the construction of its flukes, which are furnished with strong barbs on its points; these are usually fixed by a chain on the yard-arms of a ship to grapple any adversary whom she intends to board, and are particularly requisite in fire-ships, fig. 67, pl. 6; see also another kind, fig. 69, pl. 6.

GRATINGS, a sort of open cover for the hatches, resembling lattice-work, serving to give light to the lower apartments, and to permit a circulation of air; both of which are particularly necessary, when, from the turbulence of the sea, the ports between decks are obliged to be shut.

GRAVING, the act of cleaning a ship's bottom when she is laid aground during the recess of the tide. See BREAMING.

GRENADO, is a kind of small bomb or shell, being furnished with a touch-hole and fuse, and is thrown by hand from the tops, &c. whence they are most generally stiled *hand-grenades*.

GRIPE, the same as FORE-FOOT, which see.

GRIPES, an assemblage of ropes, dead-eyes, and hooks, fastened to ring-bolts in the deck, to secure the boats from being shaken by the labouring of the ship when at sea.

GRIPING, the inclination of a ship to run to windward of her course; this effect is partly occasioned by the shock of the waves, but chiefly by the arrangement of the sails.

GROG,

GROG, a general name for any spirituous liquor and water mixed together; but is more particularly applied to rum and water cold without sugar.

GROMET, a sort of ring formed of a strand of rope laid in three times round; it is sometimes used to fasten the upper edge of a sail to its stay, instead of wooden *hanks*, or iron *cringles*, and for various other purposes.

GROUNDING, the act of laying a ship on shore, in order to bream or repair her; it is also applied to running aground accidentally when under sail.

GROUND *tackle*, a general name given to all sorts of ropes and furniture which belong to the anchors, or which are employed in securing a ship in a road or harbour.

GROWING, implies the direction of the cable from the ship towards the anchors, as the cable grows on the starboard-bow, i. e. stretches out forward towards the starboard or right side.

GUARD-*boat*, a boat appointed to row the rounds amongst the ships of war in any harbour, to observe that their officers keep a good look out, calling to the guard-boat as she passes, and not suffering her crew to come on board without having previously communicated the watch-word of the night.

GUARD-*irons*, curved bars of iron placed over the ornamental figures on a ship's head or quarter, to defend them from injury.

GUARD-*ship*, a vessel of war appointed to superintend the marine affairs in a harbour or river, and to receive seamen who are impressed in time of war; she generally has an admiral's flag at one of her mast-heads.

GUESS-ROPE, or GUEST-ROPE, a rope used to tow, or to make fast a boat.

GULF, a broad and capacious bay, comprehended between two promontories, and sometimes taking the name of a sea, when it is very extensive, but particularly when it only communicates with the ocean by means of a streight.

GUN. See CANNON.

The morning GUN, a gun fired by an admiral or commodore at day-break every morning.

The evening GUN, one fired by the above at nine o'clock in summer, and eight o'clock in winter, every night.

GUN-*boat*, a boat fitted to carry one or more cannon in the bow, so as to cannonade an enemy while she is end on, or advancing towards him; they are principally useful in fine weather, smooth water, and shallow ground, to cover the landing of troops, or on such occasions.

GUNNEL, or GUN-WALE, the upper edge of a ship's side.

GUNNER *of a ship of war*, an officer appointed to take charge of the ammunition and artillery aboard, to keep the latter properly fitted and in order, and to teach the sailors the exercise of the cannon.

GUNNER'S *mate*, a petty officer appointed to assist the gunner.

Quarter-GUNNERS, men placed under the direction of the gunner to perform any work relating to the cannon, &c. which he may command; their number is always proportioned to the number of the ship's artillery, one quarter-gunner being allowed to every four guns.

GUN-ROOM, an apartment on the after end of the lower gun-deck of large ships of war, partly occupied by the gunner, but in frigates and smaller vessels, where it is below, it is used by the lieutenants as a mess-room.

GUN-SHOT, implies the distance of the point-blank range of a cannon-shot; a ship is therefore said to be within gun-shot when she is within that distance.

GUN-*tackles*, are pullies affixed to each side of a gun-carriage; their use is to run the gun out of the port, or to secure it when at sea,

GUNNERY, the art of managing artillery.

GUST, a sudden and violent squall of wind.

GUTTER-LEDGE, a cross-bar laid along the middle of a large hatchway in some vessels, to support the covers, and enable them the better to sustain any weighty body which may be laid on them.

GUY, a rope used to keep steady any weighty body, while it is hoisting or lowering.

GUY, is also the name of a tackle, used to confine a boom forward when a vessel is going large, and to prevent the sail from *gybing*, by any accidental change of the wind or course, which would endanger the springing of the boom, or, perhaps, the upsetting of the vessel. See GYBING.

GUY, is likewise a large slack rope, extending from the head of the main-mast to the head of the fore-mast, and having two or three large blocks fastened to it; it is used to sustain a tackle to load or unload a ship with, and is accordingly removed as soon as that operation is finished.

GYBING, the act of shifting any boom-sail from one side of the vessel to the other; this is done when the wind being on one quarter it becomes necessary to bring it on the other, the boom-sails must then be shifted over to the other side.

H.

HAGSTEETH, or HAKESTEETH, those parts of a matting, pointing, &c. which are interwoven with the rest in an erroneous and irregular manner, so as to spoil the general uniformity of the work. See POINTING.

HAKESTEETH, is also a phrase used to describe some parts of the soundings in the British channel.

HAILING, the salutation or accosting of a ship at a distance, which is usually performed with a speaking trumpet; the first expression is *hoa, the ship ahoay*, to which she answers *holloa*; then follow the requisite questions and replies, &c.

HALF-PIKE, a defensive weapon, composed of an iron spike, fixed on an ashen staff; its use is to repel the assault of boarders in a manner similar to the defence of the charged bayonet among infantry; hence, it is frequently termed a BOARDING-PIKE; it takes the epithet of *half* from its having a much shorter staff than the *whole pike*.

HALIARDS, the ropes or tackles usually employed to hoist or lower any sail upon its respective mast or stay. See also JEARS.

HAMMOCK, a piece of hempen cloth, six feet long and three feet wide, gathered together at the two ends by means of a *clue*, and hung horizontally under the deck, forming a receptacle for a bed. In preparing for battle, the hammocks, together with their contents, are all firmly corded, taken upon deck, and fixed in various nettings, so as to form a barricade against small shot.

HANDING *the sails*, is synonymous with FURLING them, which see.

HAND, is a phrase sometimes used for the word *man*, as, a hand to the lead; clap on more hands, &c.

HAND-GRENADE, a small cast-iron shell, filled with powder, and equipped with a fuze, which being set fire to, is thrown from the *hand* upon the enemy's decks, where by its bursting, it causes dreadful carnage; it is, however, now much less used than formerly.

HAND-LEAD. See LEAD.

HAND-OVER-HAND, the order to the men who pull upon any rope, to pass their hands alternately one before the other, or one above the other if they are hoisting. A sailor is said to go *hand-over-hand* when he ascends a single rope by the dexterity of throwing one hand above the other.

HAND-OVER-HAND, also implies rapidly, as we are coming up with the chase hand-over-hand.

HANDSOMELY, signifies moderately, as lower away handsomely.

HAND-SPIKE, a wooden bar, used as a lever to heave about the windlas, to stow the anchors, or the cargo, and on many other occasions.

Gunner's HAND-SPIKE, is shorter and flatter than the above, and is armed with iron claws for the purpose of managing the artillery.

To HANG *on a rope*, or *tackle-fall*, is to hold it fast without belaying; also to pull forcibly.

To HANG, spoken of a *mast*, implies to incline.

HANK-FOR-HANK, a phrase expressed of two ships which tack and make a progress to windward together.

HANKS, wooden rings fixed upon the stays to confine the stay-sails thereto at different distances; they are used in lieu of grommets, being much more convenient because they retain their circular figure. See GROMMETS and CRINGLES, (*iron.*)

HARBOUR, a general name given to any sea-port or haven; as also to any place convenient for mooring shipping,

shipping, where they are well defended from the violence of the wind and sea. See ROAD.

HARBOUR-MASTER, an officer appointed to inspect the moorings, and to see that the regulations of the harbour are strictly attended to by the different ships in it.

HARD-A-LEE, the situation of the helm when it is pushed close to the lee-side of the ship, either to tack or keep her head to the wind when lying to or trying; also the order to put the helm in this position.

HARD A-WEATHER, the order to put the helm close to the weather, or windward side of the ship, in order to bear away; it is likewise the position of the helm in consequence of that order being in both senses opposed to *hard-a-lee*.

HARD-A-STARBOARD, HARD-A-PORT, } is the order to put the helm close to those sides respectively.

HARPINGS, the fore-parts of the *wales*, which encompass the bow of a ship, and are fastened to the stem, being thicker than the after part of the wales, in order to reinforce the ship in this place, where she sustains the greatest shock in plunging into the sea, or dividing it.

Cat HARPINGS. See CAT HARPINGS.

HARPOON, a spear or javelin, used to strike the whales in the Greenland and South Sea fisheries; the harpoon, fig. 36, pl. 2, is furnished with a long shank, and has, at one end, a broad and flat triangular head, sharpened at both edges so as to penetrate the whale with facility: to the other end of this weapon is fastened a long cord called the whale-line, which lies carefully coiled in the boat in such a manner as to run out without being interrupted or intangled.

Gun HARPOON, a weapon used for the same purpose as the preceding, but is fired out of a gun, instead of being thrown by hand: it is made entirely of steel, and has a chain attached to it to which the line is fastened.

HARPOONER, a kind of officer in a whale boat, whose duty it is to throw, or fire the harpoon.

HATCH or HATCHWAY, a square or oblong opening in the deck of a ship, of which there are several, forming the passages from one deck to another, and into the hold, or lower apartments.

The fore HATCHWAY, stands a little abaft the fore-mast, or in large vessels, at the break of the fore-castle.

The main HATCHWAY, is just before the main-mast, and is the largest in the ship.

The after HATCHWAY, is placed between the main and mizen-masts.

For the hatches of a smaller kind, see SCUTTLE.

HATCHES, is also a name applied by sailors to the covers or lids of the hatches.

HATCH-*bars*, are bars of wood or iron used to lay fore and aft over the hatches, being fitted with a padlock at one end, by which the contents of the hold may be secured from plunder.

HAVEN. See HARBOUR.

To HAUL, an expression peculiar to seamen implying to pull a single rope without the assistance of blocks or other mechanical powers upon it; as haul in, haul down, haul up, haul aft, haul together, &c. See BOWSE, HOIST, and ROWSE.

To HAUL *the wind*, to direct the ship's course nearer to that point of the compass from which the wind arises. This is performed by arranging the sails more obliquely with the keel, by bracing the yards more forward, hauling the sheets more aft, and putting the helm over to the contrary side of the vessel to that on which the wind is to be brought. Thus the wind blowing from A to B, fig. 35, pl. 2, the ship C, hauls her wind, in tracing the curve D E. See *close*-HAULED, and SAILING.

HAWSE, is generally understood to imply the situation of the cables afore the ship's stem, when she is moored with two anchors out from the bows, viz. one on the starboard and the other on the larboard bow: hence

hence it is usual to say, she has a *clear* HAWSE, or a *foul* HAWSE. It also denotes any small distance ahead of the ship, or between her head and the anchor by which she rides; as, He has anchored in our hawse; the brig fell athwart our hawse, &c.

A ship is said to ride with a *clear* HAWSE when the cables are directed to their anchors without crossing or being twisted round each other.

A foul HAWSE, on the contrary, implies that the cables lie across the stem, or bear upon each other, so as to be rubbed and chafed by the motion of the vessel, as at x.

The hawse may be foul by having either a *cross*, an elbow, fig. 43, pl. 2, or a *round turn*. If the cables happen to be more twisted than a round turn, it is expressed by two of these terms, as a *a round turn and an elbow, two round turns*, &c. See CROSS, ELBOW, and RIDING.

HAWSE-*holes*, certain cylindrical holes cut through the bows of a ship on each side of the stem, through which the cables pass, in order to be drawn into, or let out of the vessel, as occasion requires.

HAWSE-*pieces*, a name given to the foremost timbers of a ship, whose lower ends rest upon the knuckle timber, or the foremost of the cant-timbers. They are generally parallel to the stem, having their upper ends sometimes terminated by the lower part of the beak-head and otherwise, particularly in small ships, by the top of the bow.

HAWSE-*bags*, canvas bags filled with oakum, used in a heavy sea to stop the hawse holes, and prevent the water coming in.

HAWSER, a kind of small cable used on various occasions.

HEAD, an ornamental figure erected on the continuation of a ship's stem.

HEAD, is also used in a more enlarged sense, to signify the whole front or forepart of a ship, including the bows on each side; the head therefore opens the

the column of water through which the ship passes, when advancing, hence we say HEAD-*sails*. HEAD-*way*, HEAD-*sea*, &c.

It is evident that the fore part of a ship is called its head, from the affinity of motion, and position it bears to a fish while swimming.

HEAD in a confined sense also signifies that part on each side of the stem, which is appropriated to the use of the sailors for relieving nature.

HEAD *of a mast*, or *mast*-HEAD, the upper part of any mast, or that whereon the *caps* or *trucks* are fitted.

By the HEAD, the state of a ship which is laden deeper at the fore-end, than the after-end.

HEAD-*fast*, a rope employed to fasten the head of a ship or boat to a wharf, chain, or buoy, or to some other vessel along side.

HEAD-*land*, a name frequently given to a high cape or promontory.

HEAD-*most*, the situation of any ship or ships which are the most advanced in a fleet, or line of battle.

HEAD-*rope*, that part of the bolt-rope which terminates any sail on the upper edge, and to which it is accordingly sewed. See BOLT-*rope*.

HEAD-*stick*, a short round stick with a hole at each end, through which the head-rope of some triangular sails is thrust, before it is sewed on. Its use is, to prevent the head of the sail from twisting.

HEAD-*sails*, a general name for all those sails which are extended on the fore-mast and bowsprit, and employed to command the fore part of the ship, such are the fore-sail, fore-top-sail, fore-top-gallant-sail, and royal; the jib, fore-top-mast, and fore-stay-sails, and the sprit-sail with its top-sail. This term is used in opposition to *after-sails*, which see.

HEAD-*sea*, a phrase denoting that the waves meet the head of a ship in her course.

HEAD *to Wind*, the situation of a ship or boat when her head is turned to the direction of the wind.

HEAD-*way*, the motion of advancing: it is generally used when a ship first begins to advance, or in calm weather,

weather, when it is doubtful whether she is in a state of rest or motion. It is, in both senses, opposed to retreating, or moving with the stern foremost. See STERNWAY.

The wind HEADS *us*, that is, veers round to the direction of the ship's course so as to become more contrary.

HEART, a peculiar sort of dead-eye, somewhat resembling the shape of a heart, fig. 32, pl. 2, it is furnished with only one large hole in the middle, and is principally used to the stays, as the dead-eyes are to the shrouds. See DEAD-*eye*.

HEAVER, a wooden staff employed as a lever on many occasions, such as setting up the top-mast shrouds, stropping large blocks, seizing the standing rigging, &c.

HEAVING, the act of turning about a capstern, or windlas, or such like machine, by means of bars or handspikes.

HEAVING *the lead*. See SOUNDING.

HEAVING *ahead*, is drawing a ship forwards by the cable, or other rope fastened to some fixed point before her.

HEAVING *astern*, is causing her to recede or go backwards by a similar operation.

HEAVING *down*. See CAREENING.

HEAVING *out*, the act of loosing or unfurling a sail; particularly applied to the stay-sails: thus we say, Loose the top-sails, and heave out the stay-sails.

HEAVING *keel out*, is the utmost effect to be produced by careening, viz. to raise the keel out of the water in order to repair or clean it.

HEAVING *in stays*, is the act of tacking or putting about.

HEAVING *short*, is the drawing so much of a cable into the ship, as that she is almost perpendicularly above the anchor, and in a proper situation to set sail.

HEAVING *a strain*, is the working at the windlass, or capstern with more than usual exertion.

upon the tiller, (the barrel being ⅓ or 1-5th the radius of the spokes), which again forming the long arm of a lever, ten or fifteen times the length of its shorter arm, the force upon the rudder will by consequence be from 10 times 90 to 15 times 120, or from 900 to 1800 pounds. See RUDDER, SAILING, STEERING, TRIM, and WORKING.

HELMSMAN, the man who is charged with the management of the helm.

HIGH-AND-DRY, a phrase, implying the situation of a ship which is run a-ground, so as to be seen dry upon the strand when the tide ebbs from her.

HIGH-WATER, the greatest height of the flood-tide.

HIGH-WATER-MARK, the line made by the water upon the shore when at its greatest height.

HIGH-SEA, the same as HEAVY-SEA.

HITCH, a sort of knot or noose, by which one rope is fastened to another, or to some other object, as a ring, post, timber-head, mast, &c. They are distinguished by several names, as, Clove-Hitch, plate 8, 99. Racking-Hitch, plate 8, 100. Timber-Hitch (stopped), plate 8, 101. Rolling-Hitch, and Half-Hitch, plate 8, 102. Blackwall-Hitch, plate 8, 103. &c. See BEND and KNOT.

To HITCH, is to make fast a rope.

HOASE, a long flexible tube, formed of leather or canvas, but chiefly of the latter, and used to conduct water from the main-deck to the casks in the hold, or by the assistance of a pump from one cask to another.

HOAY, a word frequently added to an acclamation, bespeaking attention, as "Main-top, hoay!" and is chiefly used to persons aloft or without the ship, to which the answer is *Holloa*.

HOG, a sort of flat scrubbing-broom, serving to scrape off the filth from a ship's bottom under water, particularly in the act of BOOT-TOPPING, which see.

Note. Since the invention of coppering a ship's bottom is become so general, the hog is greatly disused.

HOGGED,

HOGGED, implies that the two ends of a ship's decks lie lower than the middle part about the main-mast. See BROKEN-BACKED.

HOIST, the perpendicular height of a sail or flag; in the latter it is opposed to the *fly*, which implies its breadth from the staff to the outer edge.

HOISTING, the operation of drawing up any body by the assistance of tackles; it is also invariably applied to the drawing up the sails along the masts or stays, and displaying of flags and pendants, though by the help of a single block only. See SWAYING, TRACING-UP, and WHIPPING.

HOLD, the whole interior cavity or belly of a ship, or all that part of her inside which is comprehended between the floor and the lower deck, throughout her length. This capacious apartment usually contains the ballast, provisions, and stores of a ship of war, and the principal part of the cargo in a merchantman; in the former it is divided into several apartments (by bulk-heads) which are denominated according to the articles they contain, as, the fish-room, the spirit-room, the magazine, the bread-room, &c.

To trim the HOLD. See TRIM.

To stow the HOLD, is to arrange its contents in the most secure and commodious manner possible.

To rummage the HOLD, is to examine its contents.

The After-HOLD, is that which lies abaft the main-mast, and is usually set apart for the stowage of the provisions in ships of war.

The Main-HOLD, that part which is just before the main-mast, and which generally contains the fresh water and beer for the use of the ship's company.

The Fore-HOLD, denotes that part of the hold which is situated in the fore part of the ship, or about the fore-hatchway. It is usually in continuation with the main-hold, and serves the same purposes.

HOLD, in navigation, is generally understood to signify a particular situation of a ship with regard to the land or to another ship; hence we say, "Keep a good *hold* of the

land," or "Keep the shore well aboard," which are synonymous phrases, implying to keep near the land; when applied to a ship, we say, "She *holds* her own;" i. e. goes as fast as the other ship.

HOLDING-ON, the act of pulling back the hind part of any cable or other rope, which is heaved round by the capstern or windlass, or drawn in by the purchase of a tackle. For as there are only three or four turns of a rope upon the barrel of a capstern at once, a quantity of rope must necessarily come off equal to that which is wound on, and this is accordingly pulled back as strongly as possible, to prevent it from *surging* or jerking round the barrel; holding-on may therefore be defined the act of retaining any quantity of rope acquired by the effort of a capstern, windlass, or tackle, &c. as being employed in hoisting as well as heaving.

HOLDING *water*, the operation of stopping a boat in her course, by holding the oars in the water, and bearing the blade or flat part strongly against the current made along-side by her passing swiftly through the water. See BACK-ASTERN, OAR, and ROWING.

HOLDERS, the people employed in the hold of a ship.

HOLLOA, an exclamation of answer to any person who calls to another to ask some question, or to give a particular order; to signify that they hear him, and are ready. See HAILING, and HOAY.

HOME, in a naval sense, implies the situation of some object where it retains its full force of action, or where it is properly lodged for convenience or security.

To haul HOME *the top-sail-sheets*, is to extend the bottom of the top-sail to the lower yard-arms by means of the sheets.

Sheet HOME *the top-gallant-sails*, the order to extend the clues of those sails to the top-sail-yard-arms.

In the stowage of the hold, a cask is said to be *home* when it bears against or lies close to some other object, and indeed the security or firmness of the stowage greatly depends on this circumstance.

The

The cartridge is HOME, i. e. is rammed close down, so as that the priming-wire may pierce it through the touch-hole.

HOME, when spoken of the anchor, implies the station of the ship with regard to it, which is accordingly said to come *home* when it loosens from the ground by the effort of the wind or current, &c. See ANCHOR.

HOMEWARD-*bound*, is spoken of a ship when returning from a voyage to the place from whence she was fitted out.

HOMMOC, a name given by mariners to any hilloc or small eminence of land on the sea-coasts, resembling the figure of a cone.

HOOD, a sort of low wooden porch, resembling the *companion*, and is placed over the ladder which leads to the steerage in merchant-ships. Its use is to prevent the rain from falling into the steerage, but at the same time to admit the air and light.

HOOD, is also a name given to the upper part of the galley-chimney, which being in the shape of the letter L reversed, is trimmed or turned round according to the various directions of the wind.

Fore-HOOD, and *After*-HOOD, or WHOOD or WHOODEN-ENDS, a name given to the ends of the planks which are let into the channels of the stem and stern-post.

HOOD *of a Pump*, a short semi-cylindrical frame of wood, serving to cover the upper wheel of a chain-pump.

Navel-HOODS or WHOODS, large thick pieces of timber which encircle the hawse-holes.

HOOK, a crooked piece of iron, of which there are several kinds, of different shapes and sizes, used at sea; as, BOAT-HOOKS, CAN-HOOKS, CAT-HOOKS, FISH-HOOKS, &c. which see.

Laying-HOOK, a winch for twisting a rope, used in rope-making.

HOOK-AND-BUTT, the scarfing or laying two ends of planks over each other. See BUTT and BUTT.

To HOOK-*on*, is to apply the hook of a tackle to any weighty body, which is to be hoisted in or out; as a boat, a cask, &c.

HORIZON, the line which bounds our vision at sea; it is that circle which is described by the sky and water appearing to meet.

HORIZONTAL, in a direction parallel to the horizon, or what is commonly termed lying flat.

HORSE, a rope reaching from the middle of a yard to its arms or extremities, and depending about two or three feet under the yard, for the sailors to tread on while they are loosing, reefing, or furling the sails; rigging out the studding-sail booms, &c. See *h h*, fig. 63, pl. 4. In order to keep the horse more parallel to the yard, it is usually attached thereto at proper distances, by certain ropes called *stirrups*, *i i*, which hang about two feet below the yard, having an iron thimble spliced into their lower ends, through which the horse passes. See STIRRUP.

Flemish HORSE, is a smaller kind of *horse*, placed at the top-sail-yard-arms, on which the man who passes the earing usually stands.

HORSE, is also a thick rope, extended in a perpendicular direction, near the fore or after-side of a mast, for the purpose of hoisting some yard or extending a sail thereon; when before the mast it is used for the *square-sail*, whose yard is attached to the horse by means of a traveller or bull's-eye, which slides up and down. When it is abaft the mast, it is intended for the *try-sail* of a snow.

HOUNDS, a name given to those parts of a mast-head which gradually project on the right and left side, whose upper parts are also called *cheeks*: their use is to support the frame of the top together with the top-mast and the rigging of the lower-mast.

HOUSED, the situation of the great guns upon the middle and lower gun-decks when they are run in, and the breech being let down, the muzzle rests against the side above the port; they are then secured by their tackles, muzzle-lashings, and breechings.—Note, a gun is sometimes housed *fore and aft*, to make room, as in the cabin, &c.

HOUSING, or HOUSE-LINE, a small line, formed of three fine strands, smaller than rope-yarn, and is principally used for seizings of block-strops, fastening sails to their bolt-ropes, &c.

HOWKER, a Dutch vessel, commonly navigated with two masts, viz. a main and a mizen-mast, and being from 60 to 200 tons burthen. It is also the name of a fishing-boat used on the southern coasts of Ireland, and carrying only one mast.

HOY, a small vessel, usually rigged as a sloop, and employed in carrying passengers and goods from one place to another, particularly on the sea-coast, where ordinary lighters cannot be managed with safety or convenience.

To HUG *the land*, to sail as near it as possible.

To HUG *the wind*, to keep the ship close-hauled.

HULK, a name given to any old vessel laid by as unfit for further sea service. In the royal ports they are used for the accommodation of a ship's company while their own vessel is in dock under repair.

Sheer-HULK, an old ship of war, fitted with an apparatus to fix or take out the masts of his Majesty's ships, as occasion requires. The mast of this vessel is very high, and properly strengthened by shrouds and stays, in order to secure the *sheers*, which serve as the arm of a crane to hoist out or in the masts of any ship lying along-aside. The sheers are composed of several long masts, whose heels rest upon the side of the hulk, and having their heads inclining outwards, so as to hang over the vessel whose masts are to be fixed or displaced, which is effected by means of several large tackles and two capsterns, fig. 56, pl. 3.

HULL, the frame or body of a ship, exclusive of her masts, yards, sails, and rigging.

To HULL *a ship*, is to fire cannon-balls into her hull within the point-blank-range.

HULL-*down*, is spoken of a ship when she is at such a distance as that only her masts and sails are to be seen.

HULL-TO, the situation of a ship when she is *trying a hull*, or with all her sails furled. See TRYING.

HURRICANE, a violent and prodigious tempest, accompanied with lightning, in which the wind blows from every point of the compass, causing a dangerous agitation in the sea, when the waves break and dash against each other with astonishing fury. Hurricanes are most frequent between the tropics, where they sometimes produce the greatest devastation. They generally take place about the time of the sun's passing the equinox, i. e. 21st of March and 21st of September.

Ship's HUSBAND, the owner, who takes the direction and management of a ship's concerns upon himself, the other owners paying him a commission for his trouble.

I.

JACK, a sort of flag, or colours, displayed from a staff erected on the outer end of a ship's bowsprit. In the British Navy, the jack is a small union flag, but in merchant-ships the union is bordered with red.

JACK IN THE BOX, a large wooden male screw, turning in a female one, which forms the upper part of a strong wooden box, shaped like the frustrum of a pyramid. It is used by means of levers passing through holes in it, as a press in packing, and for other purposes.

JACK IN THE BREAD-ROOM, an assistant to the purser or ship's steward.

JACK-BLOCK, a block occasionally attached to the top-gallant-tie, and through which the top-gallant top-rope is reeved to sway up or to *strike* the yard.

JAM-

JAMMING, the act of inclosing any object between two bodies so as to render it immoveable; this expression is usually applied to a running rope when it is so compressed by other bodies as to be incapable of traversing in the blocks; in this sense jamming is opposed to RENDERING, which see. A cask, box, &c. is also said to be *jammed in* when it cannot be dislodged from its position without great difficulty.

ICE-BOUND. See BOUND.

IDLER, a general name given to all those on board a ship of war, who, from being liable to constant day duty, are not subjected to keep the night watch; but must, nevertheless, go upon deck if *all hands* is called during the night.

JEARS, an assemblage of tackles by which the lower yards are hoisted up or lowered down as occasion requires. See SWAYING and STRIKING. In a ship of war the tackles are fixed on the yard and mast-head, and only the fall comes down upon deck; but, in merchant ships, the tackles are spliced into the two ends of a *tye*, or single rope, which passes through two single blocks at the mast-head, and one on the yard; the lower blocks of the tackles being hooked to an eye-bolt in the deck. See TYE.

JETTY-HEAD, a name given to that part of a wharf which projects beyond the rest, but more particularly the front of a wharf, whose side forms one of the cheeks of a dock.

JEWEL-BLOCKS, the name of two small blocks suspended at the extremities of the main and fore-top-sail-yards, through which the halliards of the top-mast studding-sails are reeved; their use is to retain the top-mast-studding-sail beyond the skirts of the top-sail.

JIB, the foremost sail of a ship, being a large stay-sail extended from the outer end of the jib-boom towards the fore-top-mast-head; in cutters and sloops the jib is on the bowsprit, and extends towards the lower mast-head. See SAIL.

Clear away the JIB, is the order to loose it preparatory to its being set.

Flying JIB, a sail sometimes set upon a boom, rigged out beyond the JIB-BOOM, which see.

Middle JIB, a similar sail, sometimes set between the two preceding, being extended from the end of the jib-boom, while the *inner* jib-tack is near half way down or *in* on the boom.

JIB-BOOM, is a continuation of the bowsprit forward, being run out from its extremity in a similar manner to a top-mast on a lower mast; it is usually secured by a cap or a boom-iron on the outer end of the bowsprit, and a strong lashing within round its heel, and can therefore be drawn in upon the bowsprit as occasion requires.

Flying JIB-Boom, is a boom extended beyond the preceding by means of two boom-irons, and to the foremost end of which the tack of the flying-jib is hauled out.

JIBING. See GYBING.

JIGGER, a machine consisting of a piece of rope about five feet long, with a block at one end, and a sheave at the other, used to hold on the cable when it is heaved into the ship by the revolution of the windlass; this is done by passing the tail round the cable near the windlass, and the hind part of the rope, coming over the sheave, is stretched aft by means of another rope passing through the jigger-block.

Fleet JIGGER, a term used by the man who holds on the jigger, when, by its distance from the windlass, it becomes necessary to fleet or replace it in a proper state of action, a man at the windlass immediately fixes his handspike between the deck and the cable, so as to *jam* the latter to the windlass, and prevent it from running out till the jigger is replaced near the windlass.

JIGGER-*tackle*, a light small tackle consisting of a double and a single block, and used on sundry occasions.

IN, the state of any sails in a ship when they are furled or stowed, in opposition to *out*, which implies that they are set, or extended.

IN, is also used as an order to shorten sail, where the word *take* is understood, and is usually applied to the square upper-sails; as, In top gallant-sails. See DOWN and UP.

INSURANCE, a certain contract by which an individual, or a company agrees to indemnify whatever losses or damages may happen to a ship or cargo during a voyage. For this agreement the latter pays a certain sum in advance, called the *premium*, which accordingly falls to the insurer in case the ship arrives safe in a specified harbour, but if the ship is lost, or taken by an enemy, or burnt, the insurer renders the stipulated sum to the merchant.

JOLLY-*boat*. See BOAT.

JOURNAL, a sort of diary, or daily register of the ship's course and distance, the winds and weather, together with a general account of whatever is material to be remarked in the period of a sea voyage, such as the shifting, reducing, or enlarging the quantity of sail, the condition of the ship, and her crew, the discovery of other ships or fleets, lands, shoals, breakers, soundings, &c.

In sea journals, the day, or twenty-four hours terminates at noon, because the errors of the dead reckoning are at that period generally corrected by a solar observation.

IRON-*work*, a general name for all the pieces of iron of whatever figure or size, which are used in the construction and equipment of a ship, as bolts, boom-irons, nails, spikes, chains, and chain-plates, block-strops, cranks, braces, pintles, googings, &c.

IRON-SICK, is said of old vessels when the iron work becomes loose in the timbers.

ISLAND, is a quantity of land entirely surrounded with water.

ISLAND *of ice*, a name given to a great quantity of ice collected into one solid mass, and floating about upon the seas, near, or within the polar circles.

ISLE, the same as ISLAND.

JUNK, any remnants or pieces of old cable, which are usually cut into small portions for the purpose of making POINTS, MATS, GASKETS, SENNIT, &c. which see.

JUNK, is also the name of a Chinese vessel.

JURY-*mast*, a temporary or occasional mast erected in a ship in the place of one which has been carried away by tempest, battle, &c. Jury-masts are sometimes erected in a new ship to navigate her down a river, or to a neighbouring port, where her proper masts are prepared for her.

K.

KECKLING, the act of winding or worming old rope, &c. about a cable to preserve its surface from being fretted when it rubs against a ship's bow or fore foot, but more particularly, it implies the winding of iron chains round the cable to defend it from the friction of a rocky bottom, or from the ice.

KEDGE, a small anchor used to keep a ship steady and clear from her bower anchor. It is also used to transport a ship, or remove her from one part of an harbour to another, being carried out from her in the long boat and let go. See WARP.

KEEL, the principal piece of timber in a ship, which is usually first laid on the blocks in building. It sup-

supports and unites the whole fabric, since the stem and stern posts which are elevated on its ends, are, in some measure a continuation of the keel, and serve to connect and enclose the extremities of the sides by transoms, as the keel forms and unites the bottom by timbers.

False KEEL a strong thick piece of timber bolted to the bottom of the keel, which is very useful in preserving its lower side; in large ships of war the false keel is composed of two pieces called the upper and lower false keels.

KEEL, is also a name given to a low flat-bottomed vessel used in the river Tyne, to bring the coals down from Newcastle for loading the colliers; hence, a collier is said to carry so many keels of coals.

Upon an even KEEL, the position of a ship when her keel is parallel to the plane of the horizon, so that she is equally deep in the water at both ends.

KEEL-*hauling*, a punishment inflicted for various offences in the Dutch navy. It is performed by suspending the culprit by a rope from one yard-arm, with a weight of lead or iron upon his legs, and having another rope fastened to him, leading under the ship's bottom and through a block at its opposite yard-arm, he is then, repeatedly let fall from the one yard-arm into the sea, where passing under the ship's bottom, he is hoisted up on the opposite side of the vessel to the other.

KEELSON, pronounced, KELSON a piece of timber forming the interior of the keel, being laid upon the middle of the floor timbers immediately over the keel, and serving to bind and unite the former to the latter, by means of long bolts driven from without, and clinched on the upper side of the keelson.

To KEEP, a term used on several occasions in navigation, as,

To KEEP *the land aboard*, is to keep within sight of land as much as possible.

To

To KEEP *the luff*, or *the wind*, to continue close to the wind; *i. e.* sailing with a course inclined to the direction of the wind as much as possible.

To KEEP *off*, to sail at a distance from the shore or a ship, &c.

Boat KEEPER, one of the boat's crew who remains as a centinel in his turn, to take care of the boat and her contents when she is ashore, or alongside of a ship, or is towed astern of her.

KENTLEDGE, pigs of iron for ballast, laid upon the floor, near the keelson, fore and aft.

Limber KENTLEDGE, pigs of iron or lead, cast to fit in between the floor timbers, or in the limbers.

KETCH, a vessel equipped with two masts, viz. the main-mast and the mizen-mast, and usually from 100 to 250 tons burthen. They are principally used as YACHTS, or BOMB-VESSELS, which see.

Bomb-KETCH, a vessel rigged ketch fashion, and equipped for firing mortars. See BOMB-VESSEL.

KEVELS, pieces of timber serving to belay the sheets or great ropes by which the bottoms of the main-sail and fore-sail are extended. See fig. 61, pl. 3.

KEVEL-*heads*, the ends of the top-timbers, which rising above the gunnel serve to belay the ropes, or take a round turn to hold on.

KEY, or QUAY, a long wharf by the side of a harbour or river, furnished with posts and rings, whereby ships may be secured, as also with cranes, capsterns, &c. to load or unload the vessels which lie alongside.

KEYS, are also certain sunken rocks, lying near the surface of the water, particularly in the West-Indies.

KINK, a sort of twist or turn in any cable or rope, occasioned by its being very stiff, or close laid, or by being drawn too hastily out of the roll or tier in which it was coiled. See COILING.

KNEE, a crooked piece of timber having two branches or arms, and generally used to connect the beams of a ship with her sides or timbers, one branch being securely bolted to one of the beams, and the other in the

the same manner, strongly attached to a corresponding timber in the ship's side.

Hanging KNEES, are those which, from their situation *under* a deck, appear to support the beams.

Iron KNEES are frequently used in all the various applications instead of wooden ones, particularly in the French ships, on account of the scarcity of timber fit for the purpose.

Lodging KNEES, are fixed horizontally in the ship's frame, having one arm bolted to the beam, and the other across two or three of the timbers.

Dagger KNEES, such as are fixed rather obliquely in order to avoid an adjacent gun-port, or where, from the vicinity of the next beam, there is not space for the arms of two lodging-knees.

Standard KNEES, are those which, being *upon* a deck, have one arm bolted down to it, and the other pointing upwards secured to the ship's side; such, also, are the standards of the bits and channels.

Transom KNEES. See TRANSOM.

KNEE *of the head*, a large flat piece of timber, fixed edgeways upon the foremost part of a ship's stem, and supporting the ornamental figure or image, placed under the bowsprit. See HEAD. This knee is by seamen always called the CUTWATER, which see.

KNIGHT-HEADS, or BOLLARD-*timbers*, are two pieces of timber rising just within the stem, one on each side of the bowsprit to secure its inner end.

KNIGHT-HEADS, also denote in a merchant ship two strong frames of timber which support and inclose the ends of the windlass; as each of these is formed of two pieces, they may be occasionally separated, in order to take off the turns of the cable from the windlass, or replace them upon it; they are frequently called the bitts, and then their upper parts only are denominated knight-heads. See WINDLASS.

KNITTLES, small lines composed of two or three rope-yarns twisted together by hand, and are used to

sling the sailors' hammocks, to reef the sails by the bottom, and for various other purposes.

KNOCK-*off*, an order to cease any work.

KNOT, a large knob formed on the extremity of a rope, generally by untwisting the ends thereof, and interweaving them regularly among each other: of these there are several sorts, differing in form, size, and name, as,

Shroud KNOT, plate 8, fig. 93, p o n.

Stopper KNOT, 94,

Overhand KNOT, 95,

Single wall KNOT, 92, a b.

Double wall KNOT, (crowned,) 96, &c.

Their use is generally to act as a button in preventing the end of the rope from slipping through an eye, or through the turns of a laniard, by which they are sometimes made fast to other ropes.

KNOT, also signifies the manner of tying two ropes together, or the end of a rope to a bight in the same, as,

Bowline KNOT, (stopped,) plate 8, fig. 97.

Reef KNOT, fig. 98, &c. See BEND and HITCH.

KNOT, also implies a division of the log-line, which answers to half a minute, as a mile does to an hour, *i.* e. it is the $\frac{1}{120}$ of a mile; hence, we say, the ship was going eight knots, which signifies eight miles per hour.

L.

TO LABOUR, implies to pitch or roll heavily in a turbulent sea, an effect by which the masts and hull of the ship are greatly endangered.

LADDER, a well-known convenience, of which there are a great number in a ship serving as stairs whereby to ascend, or descend, from one deck to another; the ladders are distinguished by epithets according to the several hatchways, or other parts of a ship wherein they are situated.

Accommodation LADDER, a sort of light stair-case fixed over the side of a ship at the GANGWAY, which see.

Stern LADDERS, two ladders of rope depending from the right and left side of a ship's stern, whereby to descend into the boats which are moored astern.

LADEN, the state of a ship when she is charged with a weight or quantity of any materials equal to her tonnage or burden; if the goods are heavy her lading is determined by the weight, if they are light she carries as much as she can stow.

LADEN *in bulk*, the state of being loaded with a cargo which is neither in casks, boxes, bales, or cases, but lies loose in the hold, being defended from the moisture or wet of the hold by a number of mats, and a quantity of *dunnage*.

LADLE, in gunnery, an instrument used to draw the charge of a great gun, being made of copper, something in the form of an apple-scoop, and fixed on a long staff, see fig. 79, pl. 7.

Paying LADLE, an iron ladle with a long spout opposite to the handle; it is used to pour melted pitch into the seams after they are caulked. See CAULKING.

LAGOON, a name given to large ponds in some parts of America and the West-Indies. LAID

LAID *up*, the situation of a ship when she is unrigged, during a winter, or for want of employment; or when, from age, &c. she is unfit for further service.

LAKE, a large collection of water entirely surrounded by the land, (and stands opposed to *island*.)

LAND *breeze*, a current of air, which, in many parts within the tropics, particularly in the West-Indies, regularly sets from the land towards the sea during the night, and this even on opposite points of the coast.

LAND-*fall*, the first land discovered after a sea voyage; hence, a good land-fall implies a discovery of the land at or near the place to which the course was directed.

LAND-*locked*, is said of a harbour which is environed by land on all sides, so as to exclude the prospect of the sea, unless over some intervening land.

To make the LAND, is, to discover it after having been out of sight of it some time.

LANDSMAN, the distinctive appellation of those on board a ship who have never before been at sea.

LANGREL, or LANGRAGE, a particular kind of shot formed of bolts, nails, and other pieces of iron tied together, designed to tear the sails and rigging of the adversary; it is seldom used but by privateers and merchantmen.

LANIARD, a short piece of rope or line, fastened to several machines in a ship, and serving to secure them in a particular place, or to manage them more conveniently; such are the laniards of the gun-ports, the laniard of the buoy, the laniard of the cathook, &c. The principal laniards used in a ship are those employed to extend the shrouds and stays of the masts by their communication with the dead-eyes and hearts, so as to form a sort of mechanical power, resembling that of a tackle. See DEAD-EYES and HEARTS.

LANIARDS *of the stoppers*. See STOPPERS.

LANTERN, a well-known machine, of which there are many used in a ship, such as poop-lanterns, top-lanterns, signal-lanterns, store-room lanterns, powder-room, lanterns, &c.

LAP-

LAP-*sided*, the state of a ship which is built in such a manner as to have one side heavier than the other.

LARBOARD, a name given by seamen to the left side of a ship when the spectator's face is turned towards the head.

LARBOARD-*tack*, is when a ship is close-hauled, with the wind blowing on her larboard side.

LARBOWLINES, a cant term used by the boatswain's mates, implying the larboard watch. See WATCH.

LARGE, a phrase applied to the wind when it crosses the line of a ship's course in a favourable direction, particularly on the beam or quarter.

Sailing LARGE, is therefore the act of advancing with a large wind, so as that the sheets are slackened and flowing, and the bowlines entirely disused.

LASHING, a piece of rope, employed to fasten or secure any moveable body in a ship, or about her masts, sails, and rigging; also the act of securing or fastening any thing by means of a rope used for this purpose.

LASTAGE, signifies the ballast or lading of a ship.

LATEEN *sail*, a triangular sail, frequently used by xebecs, polacres, settees, and other vessels navigated in the Mediterranean sea.

LATEEN *yard*, a long yard, used to extend the preceding sail upon it, is slung about one-quarter from the lower end, which is brought down as the tack, while the upper end is raised in the air, in an angle of about 45 degrees. See YARD.

LATITUDE, the distance of a ship or place, either north or south, from the equator.

LATITUDE *by account*, the distance from the equator, north or south, estimated by the log-board.

LATITUDE *by observation*, the latitude determined by an observation of the sun or a star.

LAUNCH, a peculiar kind of boat, built longer, lower, and more flat-bottomed than a long-boat, and used instead of one. See BOAT.

LAUNCH, is also the movement by which a ship or boat descends from the shore into the water; hence, *to* LAUNCH.

LAUNCH *ho*, is the order to let go the top-rope after the top-mast is fidded.

LAYING *the land*, the state of motion which increases the distance from the coast, so as to make it appear lower and smaller.

To LAY-*in off a yard*, to come from the yard-arms towards the mast, so as to quit it at the rigging.

LAYING *out on a yard*, is to go out towards the yard-arms.

LAZARETTO, a building, or vessel, fitted up and appointed for the performance of quarantine, in which all persons are confined who are suspected to have come from places infected with the plague.

LEAD; an instrument for discovering the depth of water; it is composed of a large piece of lead, from 7 to 11 pounds weight, and is attached, by means of a *strop* to a long line called the lead-line, which is marked at certain distances to ascertain the fathoms.

To heave the LEAD, is to throw it into the sea in a manner calculated to produce the desired effect.

Deep-sea-LEAD, a lead of a larger size, being from 25 to 30 pounds weight, and attached to a much longer line than the former, which is called a *hand*-lead.

LEADSMAN, the man who heaves the lead.

LEADING *wind*, a free or fair wind, and is used in contradistinction to a *scant* wind. See WIND.

LEAGUE, a measure of 3 miles, much used in estimating sea distances.

LEAK, a chink or breach in the decks, sides, or bottom of a ship, through which the water passes into her hull. When a leak first commences, a vessel is said to have *sprung* a leak.

LEAKAGE, is the quantity which runs out of a cask through a leak.

LEAKY, the state of a ship when abounding with leaks, also of a cask which suffers the liquor within it to run out.

LEDGE, is a long ridge of rocks near the surface of the sea.

LEDGES, small pieces of timber placed athwart ships, under the decks of a ship, in the intervals between the beams.

LEE, an epithet to distinguish that half of the horizon to which the wind is directed from the other part whence it arises.

Under the LEE, implies farther from that part of the horizon from whence the wind blows, as, "Under the lee of the land," i. e. at a short distance from the shore which lies in the direction of the wind. This phrase is commonly understood to express the situation of a vessel anchored or sailing near the weather shore, where there is always smoother water than at a great distance from it.

LEE-*boards*, strong frames of plank affixed to the sides of flat-bottomed vessels, such as river barges, &c. which draw but little water; these, by being let down into the water when the vessel is close-hauled, prevent her from falling to leeward.

The LEE-*gage*, implies further from the point whence the wind blows than another vessel.

A LEE-*shore*, a ship is said to be on a lee-shore when she is near the land, with the wind blowing right upon it.

LEE-*lurches*, the sudden and violent rolls which a ship often takes to leeward in a high sea, particularly when a large wave strikes her on the weather side.

LEE-*side*, all that part of a ship or boat which lies between the mast and the side farthest from the direction of the wind, the other half being called the *weather* side.

LEE-*tide*, is a tide running in the same direction that the wind blows, and is directly contrary to a *tide under the lee*, which implies a stream in an opposite direction to the wind.

LEEWAY, is the lateral movement of a ship to the leeward of her course, or the angle which the line of her way makes with her keel when she is close hauled. This movement is produced by the mutual effort of the wind and sea upon her side, forcing her to leeward

ward of the line upon which she appears to sail; and in this situation her course is necessarily a compound of the two motions by which she is impelled.

LEECHES, the borders or edges of a sail, which are either sloping or perpendicular; those of the square-sails are denominated from the ship's *side*, as the starboard-leech of the main-sail, the lee-leech of the fore-top-sail, but the sails which are fixed obliquely on the masts have their leeches named from their situation with regard to the ship's *length*, as the fore-leech of the mizen, the after-leech of the jib, &c.

LEECH-*lines*, ropes fastened to the middle of the leeches of the main-sail and fore-sail, and serving to truss those sails up to the yards.

Harbour LEECH-*lines*, ropes made fast at the middle of the top-sail-yards, then passing round the leeches of the top-sails, and through blocks upon the top-sail-tye, serving to truss the sails very close up to the yard, previous to their being furled in a body.

LEECH-*rope*, a name given to that part of the bolt-rope to which the border or edge of a sail is sewed.

LEEFANG, a bar of iron, fastened at its extremities to the deck, and upon which the sheets of some fore and aft sails traverse, particularly the fore-sail of a sloop or cutter.

To LEEWARD, towards that part of the horizon which lies under the lee, or to which the wind blows.

LEEWARD *ship*, a vessel that falls much to the leeward of her course, when sailing close-hauled.

LENGTHENING, the operation of cutting a ship down across the middle, and adding a certain portion to her length.

To LET *in*, is to fix a diminished part of one plank or piece of timber into a vacancy formed in another for this purpose.

To LET *out a reef*, is to increase the dimensions of a sail, by untying the points of a reef in it.

LETTER *of mart*, a commission granted by the Lords of the Admiralty, or by the Vice-Admiral of any distant province,

province, to the commander of a merchantship or privateer to cruize against and make prizes of the enemy's ships and vessels, either at sea or in their harbours. The ship so commissioned is also called a Letter of Mart or Marque.

LEVANTER, a name given to an easterly wind up the Mediterranean.

To LIE *along*, or LIE *over*. See ALONG.

To LIE *to*. See LAING TO.

To LIE *well up*, when a ship, being close-hauled, bids fair to reach any proposed point that tack, she is said to lie well up for that point.

LIEUTENANT *of a ship of war*, the officer next in rank and power to the captain; of these there are several in a large ship, who take precedence according to the dates of their first commissions; their duty is to command the watch at sea, to see that the officers and seamen belonging thereto are attentive, and to superintend the navigation of the ship, &c.

LIEUTENANT *at arms*, is the youngest, with respect to the date of his commission, in the ship; he is particularly ordered, by his instructions, to train the seamen to the use of small arms, and accordingly in time of battle generally commands a party upon the upper decks.

LIFTS, certain ropes, descending from the cap and mast-head to the extremities of the yard immediately under, *g g*, *k k*, and *f*, fig. 63, pl. 4. Their use is to keep the yard in equilibrio, or to pull one of its extremities higher than the other, if occasion requires; but particularly to support the weight of it when a number of seamen are employed thereon to furl or reef the sail. In some merchant-vessels, the lifts of the top-sail-yards, called the top-sail-lifts, are also used as *sheets* to extend the clues of the top-gallant-sail.

The yards are said to be squared by the *lifts*, when they hang at right-angles with the mast, i. e. parallel with the horizon when the vessel is upright in the water.

Tylphing

Topping LIFTS. See TOPPING.

LIGHT, is used in contradistinction to laden; a ship is therefore said to be light, when she has no cargo, or is not sufficiently ballasted.

To LIGHT, is sometimes used instead of to help; as, "Light along that rope."

LIGHTER, a large open flat bottommed vessel, employed to carry goods to or from a ship.

Covered or *Close* LIGHTER, is a lighter furnished with a deck throughout her whole length, in order to contain those merchandizes which would be damaged by accidental wet, as also to prevent pillage.

Ballast LIGHTER, is a vessel fitted up to heave ballast from the bottom of a harbour or river, and to carry it to or from ships.

LIGHT-*house*, a sort of tower erected upon a head-land or point on the sea-coast, or upon some rock in the sea, and having a great fire, or light formed by candles, &c. upon its top, in the night-time, which is constantly attended by some careful person, so as to be seen at a great distance from the land. Its use is to direct the shipping on the coast that might otherwise run ashore, or steer an improper course.

Floating LIGHT, differs from the preceding by its being erected on board a vessel which is strongly moored upon a sand or shallow, to warn ships from approaching too near it.

LIGHT-*room*, in a ship of war, a small apartment, having double glass windows towards the magazine. It is used to contain the lights by which the gunner and his assistants are enabled to fill their cartridges with powder, to be ready for action. Large ships of war generally have two light-rooms:—

The After LIGHT-*room*, which is attached to the after magazine; and

The Fore LIGHT-*room*, which gives light to the fore or great magazine.

LIMB, in astronomy, is the edge of the sun, or of the moon, in which sense we say, the upper limb, the lower limb, the sun and moon's nearest limbs, &c.

LIM-

LIMBERS, or LIMBER-*holes*, square holes cut through the lower part of a ship's floor-timbers, very near the keel, forming a channel for water, and communicating with the pump-well throughout the whole length of the floor. Every floor-timber has two such holes cut through it, one on each side of the kelson.

LIMBER-*boards*, short pieces of plank, which form a part of the lining of a ship's floor, close to the kelson, and immediately above the limbers. They are occasionally removed, to clear the limbers of any filth by which they may be clogged, so as to interrupt the passage of the water to the pump-well.

LIMBER-*rope*, a long rope, frequently retained in the limber-holes of a ship, in order to clear them, by pulling the rope backwards and forwards, so as to loosen any dirt by which they may be choaked.

LIMBER-*kentledge*. See KENTLEDGE.

LINE, a general name given to the arrangement or order in which a fleet of ships of war are disposed to engage an enemy.

LINE *ahead*. See AHEAD.

LINE *abreast*. See ABREAST.

LINE, is also the general appellation of a number of small ropes in a ship, as

Concluding LINE, a small rope, which is hitched to the middle of every step of a stern ladder.

Deep-sea LINE, a long line, marked at every 5 fathoms with small strands of line, knotted. It is used with the deep-sea lead.

Fishing LINE, a particular kind of line, generally used for fishing.

Hand LINE, a line about 20 fathoms long, marked with black leather, white rag, and red bunten, at different distances. It is made fast to a hand lead, and used to determine the depth of water in going in or out of a harbour, river, channel, &c.

Hauling LINE, any rope let down out of a top, &c. to haul up some light body by hand.

Life

Life LINE, a rope occasionally extended in several situations for persons to lay hold of, to prevent their falling.

Navel LINE, a rope depending from the heads of the main and fore-masts, and fastened to the middle of the truss to keep it up, whilst the yard is being swayed up.

Spilling LINES, ropes fixed occasionally to the square-sails, particularly the main and fore courses of a ship in tempestuous weather, for reefing or furling them more conveniently; they are reeved through blocks upon the yard, whence leading round the sail, they are fastened behind to the yard, so that the sail is, by their efforts, very closely confined.

White LINE, implies that which has not been tarred, in contradistinction to *tarred* LINE.

Mar LINE, is a particular kind of small line, composed of two strands very little twisted; there is both tarred and white mar-line.

LINTSTOCK, a staff about three feet long, having a sharp point at one end, and a sort of fork or crotch in the other; the latter serves to contain a lighted match, and by the former, the lintstock is occasionally stuck in the deck.

LIST, implies an inclination to one side; as, The ship has a list to port; *i. e.* is depressed more in the water on that side.

LOADING *of a gun*, is the act of charging it; or the charge itself.

LOADING *of a ship*. See CARGO, and LADING.

LOBLOLLY-*boy*, a name given to the man who attends the surgeon and his mates to summon the sick, and to perform any service in their attendance on them.

Shot LOCKERS, strong frames of plank near the pump-well in the hold, in which the shot are put.

LOG, a machine used to measure the rate of a ship's velocity through the water. For this purpose, there are several various inventions, but the one most generally used is the following, called the common log:

It

It is a piece of thin board, fig. 72, pl. 6. forming the quadrant of a circle of about six inches radius, and balanced by a small plate of lead nailed on the circular part, so as to swim perpendicular in the water, with the greater part immersed. The log line is fastened to the log, by means of two legs, one of which is knotted through a hole at one corner, *a*, while the other is attached to a pin fixed in a hole at the other corner *b*, so as to draw out occasionally. The log-line being divided into certain spaces (which are in proportion to an equal number of geographical miles, as a half, or quarter minute, is to an hour of time,) is wound about a reel, fig. 73, pl. 6. The whole is employed to measure the ship's head-way in the following manner: The reel being held by one man, and the half minute-glass by another, the mate of the watch fixes the pin, and throws the log over the stern, which, swimming perpendicularly, as fig. 74. pl. 6, feels an immediate resistance, and is considered as fixed, the line being slackened over the stern to prevent the pin coming out. The knots are measured from a mark on the line, at the distance of twelve or fifteen fathoms from the log; the glass is therefore turned at the instant that the mark passes over the stern; and as soon as the sand in the glass has run out, the line is stopped; the water then acting on the log dislodges the pin, so that the board now presenting only its edge to the water, is easily drawn aboard. The number of knots and fathoms which had run off at the expiration of the glass determines the ship's velocity. The half-minute-glass and divisions on the line should be frequently measured to determine any variation in either of them, and to make allowance accordingly.

Log-*board*, two boards shutting together like a book, and divided into several columns, containing the hours of the day and night, the direction of the winds, the course of the ship, and all the material occurrences that happen during the twenty-four hours, or

from noon to noon, together with the latitude by observation. From this table, the officers work the ship's way, and compile their journals. The whole being written with chalk, is rubbed out every day at noon.

LOG-*book*, a book into which the contents of the log-board is daily transcribed at noon.

LOG-*line*, the line which is fastened to the log. See LOG.

LOG-*reel*. See REEL.

LOGGERHEAD, a spherical mass of iron with a long handle. Its use is to heat tar, by making the iron hot in the fire and then plunging it into the tar.

LONG-*boat*, the largest and strongest boat belonging to a ship. See BOAT.

LONGITUDE, the distance of a ship, or place, from some fixed meridian, as of London, and is either east or west.

LONGITUDE *by account*, is the distance east or west as computed from the ship's course and distance-run.

LONGITUDE *by lunar observation*, is the above calculated from observing the moon's distance from the sun, or a fixed star.

LONGITUDE *by time-keeper*, is estimated by the difference between the time at the place, and the time indicated by one of those improved watches called time-keepers.

LOOF, the after-part of a ship's bow, or that part where the planks begin to be incurvated as they approach the stem.

LOOK-OUT, a watchful attention to some important object or event which is expected to arise from the present situation of a ship; there is always a look-out kept on a ship's forecastle at sea to watch for any dangerous objects lying near her track, or for any strange sail heaving in sight, &c. the officer of the watch accordingly calls frequently from the quarter-deck, to the persons appointed for this service, "look out afore there."

LOOM *of an oar.* See OAR.

LOOMING, an indistinct appearance of any distant object, as the sea-coast, ships, mountains, &c. as "that ship looms large, the land looms high."

LOOP-*holes*, certain small apertures formed in the bulkheads and other parts of a merchant ship, through which the small arms are fired on an enemy who boards her.

To LOOSE, to unfurl, or cast loose any sail in order to its being set, or dried after rainy weather.

To LOOSE *a rope*, is to cast it off or let it go.

LOST, the state of being foundered or cast away.

LOW *water*, the lowest point to which the tide ebbs. See TIDE.

To LOWER, to ease down gradually, expressed of some weighty body suspended by tackles or ropes.

LOWER *handsomely* and LOWER *cheerly*, are opposed to each other, the former being the order to lower gradually, and the latter to lower expeditiously.

LUBBER, a contemptuous name given by sailors to those who know not the duty of a seaman.

LUBBER'S-*hole*, is the vacant space between the head of a lower-mast and the inner edge of the top; it is so termed from a supposition that a lubber, not caring to trust himself up the futtock shrouds, will prefer that way of getting into the top.

LUFF, the order to the helmsman to put the tiller towards the lee-side of the ship, in order to make the ship sail nearer the direction of the wind, hence—

LUFF-*round*, or LUFF-*a-lee*, is the extreme of this movement, by which it is intended to throw the ship's head up in the wind.

A ship is accordingly said to *spring her luff* when she yields to the effort of the helm by sailing nearer to the wind than she did before.

LUFF-*tackle*, a name given to any large tackle that is not destined for a particular place, but may be variously employed as occasion requires.

LUGGER, a vessel carrying three masts with a running bowsprit, upon which she sets *lug-sails*, and sometimes has top-sails adapted to them.

LUG-*sail*, a quadrilateral sail, bent upon a yard which hangs obliquely to the mast at one-third of its length.

LUG-*sail-boat*, a boat carrying sails of the preceding description.

LUMPERS, labourers employed to load and unload a merchant ship when in harbour.

LURCH. See LEE LURCHES.

LYING-TO, the situation of a ship when she is retarded in her course by arranging the sails in such a manner as to counteract each other with nearly an equal effort, and render the ship almost stationary with respect to her head-way; a ship is usually brought to by laying either her main-top-sail, as at C, or her fore-top-sail, as at D. fig. 34, pl. 2, aback, the helm being put close down to leeward.

LYING-TO *in a storm*. See TRYING.

M.

MAGAZINE, a close room built in a ship's hold to contain the gunpowder; it is lighted occasionally by means of candles fixed in the light-room contiguous to it. See LIGHT-ROOM.

Large ships of war generally have two magazines, each furnished with a light-room; the hanging, or after magazine, which is usually the smallest, contains only a sufficient supply of cartridges for the after-guns during an action; but the fore magazine contains a quantity of powder sufficient to supply the ship for a length of time.

MAGNET,

MAGNET. See COMPASS.

MAIN, an epithet applied to whatever is principal, as opposed to what is inferior, or secondary; thus, the *main-land* is used in contradistinction to an island, and the *main-mast*, the *main-wale*, the *main-keel*, and the *main-hatchway*, are in like manner distinguished from the *fore* and *mizen* masts, the *channel* wales, the *false* keel, and the *fore* and *after* hatchways. For the sails, yards, and rigging of the *main-mast* see those particular articles.

MAIN-*tackle*, a large and strong tackle, hooked occasionally upon the main-pendant, and used for various purposes, particularly in securing the mast, by setting up the rigging, stays, &c. See PENDANT.

To MAKE is variously applied in the sea language, as,

To MAKE *a good board*. See BOARD.

To MAKE *the land*, to discover it from a distant situation, in consequence of approaching it after a sea voyage.

To MAKE *sail*, is to increase the quantity of sail already extended, either by letting out the reefs, or by hoisting an additional number of sails.

To MAKE *sternway*, to retreat or move with the stern foremost.

To MAKE *water*, usually signifies to leak, unless the epithet foul be added. See FOUL WATER.

MALLET, a sort of wooden hammer, of which there are several sorts, used for different purposes on shipboard, as,

Caulking MALLET, an instrument chiefly employed to drive the oakum into the seams of a ship, where the edges of the planks are joined to each other in the sides, decks, or bottom; the head of this mallet is long and cylindrical, being hooped with iron to prevent it from splitting.

Serving MALLET, a mallet used in serving the rigging which binds the spun yarn more firmly about it than could possibly be done by hand; the body of this mallet, fig. 47, pl. 2, has a round channel in its surface

face which conforms to the convexity of the rope intended to be served.

MAN, by this word, used in the sea language, a ship is frequently understood as a MAN OF WAR, a MERCHANTMAN, a GUINEAMAN an EAST-INDIAMAN, a GREENLANDMAN, &c. in all which instances the word ship is implied.

To MAN, is to place men sufficient for any particular exercise at the proper station, as,

MAN *the capstern*, that is, place the men to the bars in readiness to heave.

MAN *the top-sail sheets*, that is, let the men lay hold of and be ready to pull upon the top-sail sheets.

To MAN *ship*, is to range the people on the yards and rigging in readiness to give three cheers, as a salute.

To MAN *the yards*, to send a sufficient number of men upon the yards to reef or furl the sails.

To MAN *a prize*, to send a proper number of people on board to navigate her.

MANGER, a small space extending athwart the deck of a ship of war immediately within the hawse-holes, and separated on the after-part, from the other part of the deck by the

MANGER-BOARD, a strong bulk head, built as high as, and serving to stop the water which sometimes rushes in at the hawse-holes, and would otherwise run aft in great streams on the deck; the water, thus stopped, is again returned into the sea through the SCUPPERS, which see.

MANIFEST, an inventory of the whole cargo of a merchant ship.

MARINE, a general name for the navy of a kingdom or state; as also the whole œconomy of naval affairs.

MARINER, a person who gets his living on the sea.

MARINES, a body of forces employed in the sea service under the direction of the lords of the admiralty.

MARITIME, something relating to, bounded by, or near the sea.

MARITIME POWERS, those states which possess harbours, &c. on the sea-coasts, and a powerful navy to defend them.

MARLINE. See LINE.

MARLING, the act of winding any small line, as, *marline, spun yarn, twine*, &c. about a rope, so that every turn is secured by a kind of knot, and remains fixed in case the rest should be cut through by friction. It is commonly used to fasten slips of canvas called parsling, upon the surface of a rope to prevent its being galled, or to attach the foot of a sail to its bolt-rope, &c.

MARLING-SPIKE, an iron pin tapering to a point, and principally used to separate the strands of a rope, in order to introduce the ends of some other through the intervals in the act of knotting or splicing; it is also used as a lever in fixing seizings, &c.

To MAROON, to put one or more sailors on shore upon a desolate island, under pretence of their having committed some great crime; this detestable expedient has been too often practised by some inhuman commanders of merchant ships.

To MARRY *two ropes*, is to knot the yarns together in a kind of splice, so as not to be thicker at the juncture than at any other part.

MARTINGALE, a rope extending downwards from the jib-boom end to a kind of bumpkin fixed perpendicularly under the cap of the bowsprit; its use is to confine the jib-boom down in the same manner as the bobstays retain the bowsprit.

MAST, a long round piece of timber elevated perpendicularly upon the keel of a ship upon which are attached the yards, the sails, and the rigging, see *a*, fig. 66, pl. 6.

Top-MAST, a similar, but smaller piece of timber, *b*, raised at the head or top of the lower mast through a cap, *x*, and supported by the trestle-trees, *pp*. See CAP and TRESTLE-TREES.

Top

Top-gallant-MAST, is a mast smaller than the preceding, and raised and secured to its head in the same manner, *c*, fig. 66, pl. 6.

Top-gallant-royal MAST, is sometimes a yet smaller mast, elevated through irons at the head of the top-gallant-mast; but it is more generally a continuation of the latter above the rigging, as *d*, fig. 66, pl. 6. It is then termed a pole-top-gallant-mast, to distinguish it from a stump top-gallant-mast, which terminates just above the rigging.

Main-MAST, the largest mast in a ship, and stands nearly in the middle between the stem and stern.

Fore-MAST, is that which stands near the stem, and is next in size to the main-mast.

Mizen-MAST, the smallest mast, and stands about half way between the main-mast and the stern.

Made-MAST, a mast built or composed of several pieces of timber in contradistinction to one consisting of a single stick or piece.

Jury-MAST. See JURY.

Rough-MAST, denotes a spar fit for making a mast.

To MAST *a ship*, to hoist her masts into her by means of sheers, or of a sheer-hulk. See SHEERS and HULK.

To over-MAST, to put masts into a ship which are too tall and heavy for her.

MASTER *of a ship of war*, an officer ranking immediately after the lieutenants, and appointed by the commissioners of the navy, to take charge of the navigating and conducting a ship from port to port, under the direction of the captain. The management and disposition of the sails, the working the ship into her station in the order of battle, and the direction of her movements in time of battle, are also particularly under his inspection; and he is moreover charged with the stowage of the hold; to enable him the better to perform these services, he is allowed several assistants, who are termed MATES and QUARTER-MASTERS, which see.

MASTER *of a merchant ship*, the commanding officer, who is appointed by the owners to manage the navigation,

tion, and every thing relating to the cargo, voyage, sailors, &c. He is generally, though improperly, denominated captain.

MASTER *at arms*, an officer appointed to teach the officers and crew of a ship of war the exercise of small arms; he is also to plant centinels over prisoners, and superintend them while in confinement; he is to see that the fire and lights are extinguished at proper hours, and to attend the gangway to prevent spirituous liquors being conveyed into the ship, unless by permission of the commanding officer. His assistants in these several duties are called *Ship's* CORPORALS, which see.

MASTER *Attendant*, an officer in the royal dock-yards appointed to assist in the fitting out or dismantling, removing or securing vessels of war, &c. at the port where he resides; he is frequently to inspect the moorings which are sunk in the harbour, to visit all the ships in ordinary to see that they are kept in order, and to attend at the general musters in the dock-yard.

MASTER, in most other applications, denotes chief; as *Master* boat-builder, *Master* caulker, *Master* sail-maker, &c.

MAT, a sort of thick web, or texture, formed of spun-yarn or of foxes, containing each a greater or lesser number of rope-yarns, in proportion to the thickness of the mat intended to be woven. Mats are used to fasten upon the outside of such parts of the standing rigging as are exposed to the friction of the yards, bolt-ropes of sails, or other ropes.

MATCH, a substance prepared for keeping alight and burning away slowly, and is used to fire the cannon.

MATE *of a ship of war*, an officer under the direction of the master, to assist him in the several branches of his duty; accordingly he is to pay particular attention to the log-line, and glass; he is to see that the cables are well coiled in the tiers, and sufficiently served when employed to ride the ship; and, finally, he is to superintend the stowage of the hold.

MATE *of a merchant-ship*, the officer who commands in the absence of the master, and shares the duty with him at sea. The first, second, and third mates of East-India ships may indeed, with great propriety, be compared to Lieutenants in the Navy, particularly with regard to their duty: the third takes also the care of the hold, and in this respect performs part of the master's duty in the Navy.

MATE, generally implies adjunct or assistant, as *Quartermaster's mate*, &c.

MAUL, a large iron hammer, used for various purposes.

Top MAUL, is distinguished by having an iron handle with an eye at the end, by which it is tied fast to the mast-head, to prevent accidents by its falling out of the top; it is principally used to drive the fid in or out of the top-mast.

MERIDIAN, any line supposed to be drawn from the north to the south pole, through any given point; therefore a place being under the meridian of another place, is either due north or south of it.

Ante MERIDIAN, or A. M. before noon.

Post MERIDIAN, or P. M. after noon.

MESS, any company of the officers or crew of a ship who eat, drink, and associate together.

MESS-*mate*, a companion or associate in such a company.

MESSENGER, a large rope, used to unmoor or heave up the anchors of a ship, by transmitting the efforts of the capstern to the cable. This is performed by fastening one part of the messenger to the cable, in several places, by a particular kind of rope called *nippers*, and by winding another part thereof three or four times about the capstern, which answers the same purpose as if the cable itself were in that manner wound about the capstern; and the messenger being much lighter and more pliant, is infinitely more convenient. The messenger has an eye-splice at each end, through which several turns of a strong lashing are

are passed, (plate 8, fig. 119) forming a continuation, whereby a quantity passes forward on one side equal to what is hove in on the other. See VOYAL.

Light forward the MESSENGER, is the order to pull the slack of it towards the hawse-holes, so as to be ready to fasten upon the cable which is being hove in.

MID-*channel*, implies half away across, or in the middle of any channel, river, &c.

MIDSHIP, a term applied by shipwrights to several pieces of timber which lie in the broadest part of the vessel, as,

MIDSHIP-*beam*, the beam upon which the extreme breadth of a ship is formed, and which is situated in the midship frame, nearly in the middle of her length, serving as a standard from whence the dimensions of the masts and yards are to be taken.

MIDSHIP-*frame*, a name given to that timber, or combination of pieces formed into one timber, which determines the extreme breadth of the ship, as well as the figure and dimensions of all the inferior timbers.

MIDSHIPS. See AMIDSHIPS.

MIDSHIPMEN, a sort of naval cadets, appointed by the captain of a ship of war to second the orders of the superior officers, and assist in the necessary business of the vessel, either aboard or ashore. No person can be appointed lieutenant without having previously served two years in the Royal Navy in this capacity, or in that of *mate*, besides having been at least four years in actual service at sea.

Midshipman is accordingly the station in which a young volunteer is trained in the several exercises necessary to attain a sufficient knowledge of the machinery, discipline, movements, and military operations of a ship, to qualify him for a sea officer.

MIZEN, the aftermost or hindmost of the fixed sails of a ship, extended sometimes by a gaff and sometimes by a yard which crosses the mast obliquely, the fore end reaching almost down to the deck, and the after end being peeked up as high above the middle of the yard,

yard, which is attached to the mast; the head and fore leech of the mizen are laced upon the gaff (or yard) and mast, and the sheet hauls out near the taffarel.

MIZEN-*mast*, the mast which supports all the after-sails. The explanations of the rigging, yards, and sails of this mast being in general applicable also to the same furniture of both the other masts, the reader is referred to the articles SHROUD, STAY, YARD, &c. observing only that the epithet of *Fore*, *Main*, or *Mizen*, is added to each term, to distinguish them from each other.

MOLE, a name given in the Mediterranean to a long pier or artificial bulwark of masonry, extending obliquely across the entrance of a harbour, in order to break the force of the sea from the vessels that are anchored within.

MOLE, is also applied to the harbour or haven which is formed by the bulwark above described, which latter is then denominated the mole-head.

MONSOON, a name given to the periodical trade winds which blow regularly in certain latitudes of the Indian Ocean. They continue five or six months invariably in one direction, and then alter their course and blow during an equal space of time from an opposite point of the compass, with the same uniformity.

To MOOR, to confine or secure a ship in a particular station by chains or cables, which are either fastened to the adjacent shore or to anchors in the bottom: a ship is never said to be moored when she rides by a single anchor.

To MOOR *a cable each way*, is performed by dropping one anchor, veering out two cables lengths, and letting go another anchor from the opposite bow; the first is then hove in to one cable, while the latter is veered out as much, whereby the ship rides between the two anchors, equally distant from both. This is usually practised in a tide way, in such manner that the ship rides by one during the flood, and by the other during the ebb.

To MOOR *head and stern*, this operation may be performed in two methods, viz. either by veering out a sufficient quantity of cable on the first anchor let go, then letting go an anchor whose cable enters the ship at the stern instead of the hawse-holes, and heaving in on the first, while veering out the second to a convenient length, the ship will be thus made fast with her keel in a line with the two anchors: or, instead of veering out so much of the head-cable, the kedge, or stream anchor may be carried out astern in the long-boat and let go, and the cable being passed in at the stern, the ship will be retained in a similar position. This method of mooring is generally practised where there is little or no tide, and where there are only light airs blowing from the land, as in the West-Indies.

To MOOR, with a spring on the cable. See SPRING.

MOORINGS, are an assemblage of anchors, chains, and bridles, laid athwart the bottom of a river or harbour to ride the shipping therein. The anchors have generally but one fluke, and the chain is furnished with a swivel, to which are attached the bridles, which are short pieces of cables well served, whose upper ends are drawn into the ship and secured to the bitts, &c. By this means the vessel veers round very readily, according to the change of the wind or tide; in some places, however, particularly in rivers, each ship takes in a bridle astern also, by which she becomes moored head and stern.

MORTAR, a piece of artillery, shorter and wider than a cannon, and having a chamber less than the size of its bore. It is used to discharge bombs, or shells, and carcases into a fortified place. The bomb, or shell, is a great hollow ball filled with powder, which falling into a fortification, &c. destroys the most substantial buildings by its weight, and bursting asunder creates the greatest mischief and disorder by its splinters. To prevent the shell from bursting at the first moment of discharge, it is furnished with a

fuse, which continues burning during its flight; and to encrease the weight of its fall, the mortar is elevated to a considerable angle above the horizon.

MOULD, a thin flexible piece of timber, used by shipwrights as a pattern whereby to form the different curves of the timbers, and other compassing pieces in a ship's frame; of these there are two sorts, the bend-mould for the convexities, and the hollow mould for the concavities.

MOUNTED, said of a gun when placed on its carriage.

To MOUNT, expressed of a vessel of war, implies to *carry*; as, She mounts twenty guns.

MOUSE, a sort of knob, wrought on the outside of a rope by means of spun-yarn, parsling, &c. pl. 8, fig. 119. See PUDDENING. It is particularly used on the stays to prevent the eye from slipping up to, and jamming at the mast-head. Pl. 8, fig. 118.

MOUSING *a hook*, is the fastening a small line across the upper part, from the point to the back thereof, to prevent it from unhooking when the tackle is slackened.

To MUFFLE *the oars*, is to put some matting, &c. round that part of the oar which lies on the edge or gunnel of the boat, when rowing, to prevent its making a noise against the holes.

MUSTERING, the act of calling over a list of the whole ship's company, or any particular detachment thereof, who are accordingly to answer to their names.

MUTINEER, one who mutinies.

MUTINY, revolt and disobedience of orders.

N.

NADIR, that point in the heavens which is perpendicularly under our feet, and is therefore diametrically opposite to the zenith, or point directly over our heads. See ZENITH.

NAVAL, of or belonging to a ship, or to the Royal Navy; hence *naval* stores, *naval* officers, &c.

NAVEL *whoods*. See HOODS.

NAVEL *line*. See LINE.

NAVIGATION, the art of directing the movements of a ship by the action of the wind upon the sails.

NAVIGATION, is applied with equal propriety to the arrangement of the sails according to the state of the wind, and to the directing and measuring a ship's course by the laws of GEOMETRY; or it may comprehend both, being then considered as the theory and practice thereof.

NAVIGATOR, a person who understands the Art of NAVIGATION.

NAVY, implies, in general, any fleet, or assembly of ships. It is, however, more particularly understood of the fleet of vessels of war which belong to a kingdom or state.

NAVY, is also used to denote the collective body of officers employed in his Majesty's sea-service.

NAVY-*board*, the Commissioners of the Navy collectively considered. See COMMISSIONERS.

NAVY-*office*, the office where the accounts of the navy are kept.

NAUTICAL, relating to sailors or sailing.

NEAP-*tides*, are those which happen when the moon is nearly at the second and fourth quarters, the neap tides

are low tides in respect to their opposites, the *spring* tides.

NEAPED, the situation of a ship which is left aground on the height of a spring tide, so that she cannot be floated off till the return of the next spring.

NEEDLE. See COMPASS.

Bolt-rope NEEDLE, a large needle, with a triangular point, used to sew the bolt-rope upon the sails.

Sail NEEDLES, are needles used for sewing the seams of sails.

NESS, implies a point, cape, or headland.

NETTING, a sort of fence, formed of an assemblage of ropes fastened across each other, so as to leave uniform intervals between. These are usually stretched along the upper part of a ship's quarter, to contain some of the seamen's hammocks, and secured in this position by rails and stanchions. Nettings are also used for containing the fore and main top-mast stay-sails when stowed.

Boarding NETTING, a netting extending fore and aft from the gunnel to a proper height up the rigging. Its use is, to prevent an enemy from jumping aboard on to the decks in an engagement, &c.

Overhead NETTING, is stretched from the main-mast aft to the mizen shrouds, in an horizontal position, about twelve feet above the quarter-deck. Its use is to secure the officers from accidents of blocks, &c. falling from the mast-heads.

To NIP, to tie, or secure with a seizing.

NIPPERS, certain pieces of cordage used to fasten the cable to the messenger, or voyal, in a ship of war, when the former is drawn into the ship by mechanical powers applied to the latter. They are usually six or eight feet in length, and five or six of them are commonly fastened on at once; those which are farthest aft, are taken off as the cable approaches the main-hatchway, and others are at the same time fastened on in the fore part of the ship to supply their places, the boys of the ship receiving the ends

to

to walk aft with them, and carrying them forward again when cast off from the cable.

NIPPER-*men*, persons employed to bind the nippers about the cables and voyal, and to whom the boys return the nippers when they are taken off.

Selvagee NIPPERS, are used, when from a very great strain, the common nippers are not found sufficiently secure, selvagees are then put on and held fast, by means of tree-nails. See SELVAGEE and TREE-NAILS.

NETTLES. See KNITTLES.

NO-MAN'S-LAND, a space in midships between the after part of the belfry, and the fore part of a boat when she is stowed upon the booms, as in a deep waisted vessel. It is used to contain any blocks, ropes, tackle, &c. which may be occasionally necessary for the forecastle.

NO-NEAR, the order to the helmsman, when the ship is close-hauled, to put the tiller a little to the windward side, in order to keep the sails full.

NORMAN, a name given to a short wooden bar, thrust into one of the holes of the windlass in a merchantman, whereon to fasten the cable. It is only used when there is very little strain upon the cable.

NUTS *of an anchor*, See ANCHOR.

O

OAKUM, the substance into which old ropes are reduced when they are untwisted, loosened, and drawn asunder.

White-OAKUM, is that which is formed from untarred ropes.

OAKUM-*boy*, a boy who attends a caulker to bring him oakum, pitch, &c.

OAR, a long piece of timber, flat at one end, and round or square at the other, used to make a vessel advance upon the water. The flat part which is dipped into the water, is called the *blade*, and that which is within board is termed the *loom*, whose extremity being small enough to be grasped by the rowers, is called the *handle*.

To boat the OARS, is to cease rowing, and lay the oars in the boat.

Get your OARS *to pass*, the order to prepare them for rowing.

To ship the OARS, is to place them in the row-locks, as

To unship them, is to take them out of the row-locks, and is frequently practised in passing very near a vessel, to prevent breaking the oars, &c.

Double-banked OARS. See BANK.

OBSERVATION, the art of measuring the altitude of the sun, or a star, in order to determine the latitude, or the sun's azimuth, &c.

OFF, is applied to the movement of a ship, when she sails out from the shore towards the distant sea: it also implies abreast of, or near; as, We were *off* Cape Finisterre.

OFF *and on*, when a ship beating to windward, approaches the shore by one board, and by the other

other sails out to seaward, she is said to stand off and on.

Nothing OFF, the order to the helmsman not to suffer the ship to bear away, or fall off from the wind.

OFFICER *of the watch*, the lieutenant or mate who commands the watch. See WATCH.

OFFING, implies out at sea, or at a competent distance from the shore.

OFFWARD, the situation of a ship which lies aground, and leans from the shore.

OPEN, the situation of a place which is exposed to the wind and sea.

OPEN, is also expressed of any distant object, the sight or passage to which is not intercepted by any thing lying or coming between.

OPENING, a passage, or straight, between two adjacent coasts, &c.

ORDER *of sailing*. See SAILING.

ORDINARY, the establishment of the persons employed by the government to take charge of the ships of war which are laid up in the several harbours adjacent to the royal dock-yards. These are principally composed of the warrant officers of each ship, as the gunner, boatswain, carpenter, deputy purser, and cook, and their servants. There is besides a crew of labourers, who pass from ship to ship, occasionally to pump, moor, remove, or clean them.

ORDINARY-*seaman*, implies one who can make himself useful on board, but is not an expert or skilful sailor. These latter being termed *able* seamen.

Ships in ORDINARY, are those which being laid up, are under the direction of the master attendant.

ORLOP, a platform of planks laid over the beams in the hold of a ship of war, whereon the cables are usually coiled. It also contains the sail-rooms, the purser's, surgeon's, boatswain's, and carpenter's cabins, and the several officers' store-rooms.

OVERBOARD, the state of being thrown out, or the act of falling from a ship or boat into the water on which

which she swims; as, There is a man overboard.—She threw her guns overboard, &c.

OVERCAST, in speaking of the weather, implies, cloudy, dull.

OVERCAST *staff*, a scale, or measure, employed by shipwrights, to determine the difference between the curves of the timbers.

OVERHAULING, the act of opening and extending the several parts of a tackle, or other assemblage of ropes, communicating with blocks or dead-eyes, so that they may be again placed in a state of action,

OVERHAULING, also implies an examination of a ship, person, or thing.

One ship is said to OVERHAUL *another*, when she gains fast upon her in chace.

OVER-*masted*, the state of a ship whose masts are too high, or too heavy, for the weight of her keel to counterbalance.

OVER-*rake*, when a ship rides at anchor in a head-sea, the waves of which frequently break in upon her, they are said to over-rake her.

OVERSETTING, the act of turning any thing upside down; also the movement of a ship when she overturns.

OUTFIT, implies the expences of equipping a ship for sea.

OUT *of trim*, the state of a ship when she is not properly balanced for the purposes of navigation, which may be occasioned by a defect in the rigging, or in the stowage of the hold.

OUT-*rigger*, a strong beam of timber, of which there are several, fixed on the side of a ship, and projecting from it, in order to secure the masts in the act of careening, by counteracting the strain it suffers from the effort of the careening tackles, which, being applied to the mast-head draw it downwards, so as to act upon the vessel with the power of a lever, whose fulcrum is in her center of gravity.

OUT-*rigger*, is also a small boom, occasionally used in the tops to thrust out the breast back-stays to windward, in order to encrease the angle of tension, and thereby give an additional security to the top-mast It is usually furnished with a tackle at its inner end.

To OUT-*sail a ship*. To sail faster than she.

OUTWARD, implies out of the port, or kingdom; as The outward bound ships, as by my last letter.

OWNER, the proprietor of a ship.

OX-*eye*, a small cloud or meteor, seen at the Cape of Good Hope, which presages a gale of wind.

P.

PACKET, or PACKET-*boat*, a vessel appointed by the government to carry the mail of letters, packets, and expresses from one kingdom to another by sea, in the most expeditious manner.

PADDLE, a sort of oar used by the natives of Africa, and America, to navigate their canoes. It is much shorter and broader in the blade than an oar, and is equally employed in rowing and steering.

PAINTER, a rope employed to fasten a boat along-side of a ship, wharf, or key, &c.

Shank-PAINTER. See SHANK.

PALM, an instrument used instead of a thimble in sewing of canvas for sails, &c. It is composed of a round piece of iron, an inch in diameter, whose surface is full of cavities, to receive the head of the needle, and is fixed upon a piece of canvas or leather, which encircles the hand, keeping the iron in the *palm* of the hand, whence it has its name.

PANCH, a sort of thick and strong mat, formed by interweaving twists of rope-yarn as close as possible; it is chiefly used to fasten on the outside of the yards or rigging, to prevent their surfaces from being rubbed by the friction of some other contiguous object.

PARALLAX, is the difference in altitude of a celestial object, as seen from the surface and from the center of the earth at the same instant.

PARALLEL, is sometimes used instead of latitude, which is then understood, as, "Our orders were to cruise in the parallel of Madeira."

PARBUCKLE, is a contrivance to haul up or lower down a cask, &c. where there is no crane or tackle; it is formed by passing the middle of a rope round a post or ring, or under a boat's thwart; the two parts of the rope are then passed under the two quarters of the cask, bringing the two ends back again over it, which being both hauled or slackened together, either raise or lower the barrel, &c. as may be required.

PARCELING, long narrow slips of canvas daubed with tar, and bound about a rope in the manner of bandages, previous to its being served; it is also used to raise a mouse on the stays, &c. and is firmly fastened by marling from one end to the other.

PARCELING *a seam*, is the laying a slip of canvas upon and daubing it over with melted pitch.

PARLIAMENT-*heel*, the causing a ship to incline a little on one side so as to clean the upper part of her bottom on the other, and cover it with fresh composition, which latter operation is called *boot-topping*. See BOOT-TOPPING.

PARREL, a machine used to fasten the sail-yards of a ship to the mast, in such manner as that they may be easily hoisted and lowered thereon; there are four different kinds of parrels, viz.

PARREL-*rope*, is formed of a single rope well served and furnished with an eye at each end; this being passed round the yard is seized fast on, the two ends are passed round the after-part of the mast, and one of them

them being brought under, and the other over the yard, the two eyes are lashed together with a piece of spun yarn; this is seldom used but for the top-gallant and smaller yards.

PARREL *with ribs* and *trucks*, *a*, fig. 57, pl. 3, is formed by passing the two parts of the parrel-rope through the two holes in the *ribs*, observing that between every two ribs is strung a *truck* on each part of the rope. See RIB and TRUCK. The ends of the parrel-rope are made fast with seizings; these are chiefly used on the top-sail-yards.

PARREL *with trucks*, is composed of a single rope passing through a number of trucks sufficient to embrace the mast; these are principally used for the cheeks of a gaff.

Truss-PARREL, is formed by fixing a rope upon the middle of the yard, which, passing at the back of the mast, is reeved through an iron thimble, spliced into another rope, (also fastened upon the yard) and communicates with a tackle reaching to the deck, whereby it may be occasionally slackened or straitened; ships of war generally have two of these, one leading from each side, and they are peculiar to the lower yards.

PARSLING. See PARCELING.

PARTING, the state of being driven from the anchors, by breaking the cables, through the violence of the wind, waves, &c.

PARTNERS, pieces of plank nailed round the several scuttles or holes in a ship's decks, wherein are contained the masts and capsterns; they are used to strengthen the deck where it is weakened by those breaches.

PARTNERS, is also a name given to the scuttles themselves, where the masts and capsterns are fixed.

To PASS, to give from one to another; also to take certain turns of a rope round a yard, &c. as, pass the line along, pass the gasket, pass a heel lashing, pass a seizing, &c.

PASS, or PASSPORT, a permission granted by any state to navigate in some particular sea without hindrance or molestation; it contains the name of the vessel, and that of her master, together with her tonnage, and the number of her crew, certifying that she belongs to the subjects of a particular state, and requiring all persons at peace with that state to suffer her to proceed in her voyage without interruption.

PASSAGE, a voyage from one place to another by sea.

Outward-bound PASSAGE. See OUTWARD.

Homeward-bound PASSAGE. See HOMEWARD.

PASSAGE-*boat*, a small vessel, employed in carrying persons short distances by sea.

PASSAREE, a rope to confine the tacks towards the ship when she is going large in light breezes; it is, however, very rarely used.

PASSENGER, a person who pays for his passage in any vessel, and therefore is not expected to assist either in working or fighting her.

PATRON, is a name given to the commanders of small vessels, such as passage-boats, &c. and is particularly applied to the man who steers a ship's long-boat.

PAWL, a short bar of wood or iron fixed close to the capstern or windlass of a ship, to prevent those engines from rolling back, or giving way when they are charged with any great effort.

PAWL-*bits*, are pieces of timber fixed perpendicularly before the windlass, near the middle of it, and serving as supports to the pawls which are pinned into them.

PAUNCH; see PANCH.

To PAY, as a naval term, implies to daub or anoint the surface of any body in order to preserve it from the injuries of the water, weather, &c.

To PAY *a vessel's bottom*, to cover it with a composition of tallow, sulphur, rosin, &c. See BREAMING.

To PAY *a mast or yard*, to anoint it with tar, turpentine rosin, tallow, or varnish; tallow is particularly useful for those masts upon which the sails are frequently hoisted and lowered, such as top-masts, sloops and schooners lower masts, &c.

To PAY *a seam*, is to pour melted pitch along it so as to defend the oakum, with which it is caulked, from the wet.

PAYING-*off*, the movement by which a ship's head falls to leeward, particularly when, by neglect of the helmsman, she had inclined to windward of her course, so as to make the head-sails shiver in the wind.

PAYING-*off*, also implies the payment of the ship's officers and crew, and the discharge of the ship from actual service.

PAYING-*out*, or PAYING-*away*, the act of slackening a cable or other rope, so as to let it run out of the vessel.

PEAK, a name given to the upper corner of those sails which are extended by a gaff, or by a yard, which crosses the mast obliquely, as the mizen-yard of a ship, the main-yard of a bylander, &c. The upper extremity of those yards and gaffs, are also denominated the peak.

PEAK *haliards*, are the ropes or tackles by which the outer-end of a gaff is hoisted, as opposed to the THROAT-*haliards*, which see.

To PEAK, is to raise a gaff or yard more obliquely to the mast.

PENDANT, a sort of long narrow banner displayed from the mast-head of a ship of war, and usually terminating in two ends or points, called the *swallows-tail*. It denotes that a vessel is in actual service.

Broad-PENDANT, is a kind of flag terminating in one or two points, used to distinguish the chief of a squadron; see COMMODORE.

PENDANT, is also a short piece of rope fixed on each side, under the shrouds, upon the heads of the main and fore-masts, from which it depends, as low as the cat-harpings, having an iron thimble spliced into an eye at the lower end, to receive the hooks of the main and fore-tackles. There are, besides, many other pendants of this latter kind, which are generally single or double ropes, to whose lower extremity is attached a block or tackle; such are the fish-pendant,

stay-tackle-pendant, yard-tackle-pendant, reef-tackle-pendant, &c. all of which are employed to transmit the efforts of their respective tackles to some distant object.

Rudder-PENDANT, is a strong rope made fast by means of a chain to the rudder. Its use is to prevent the loss of the rudder, if, by any accident, it should get unshipped or disengaged from the gudgeons.

PENINSULA, is a track of land joined to the continent by a narrow neck called an *isthmus*.

PERIAGUA, a sort of large canoe, composed of the trunks of two trees, hollowed and united in one fabric; it is used in South America and the Gulf of Mexico.

PIER, a strong mound or fence projecting into the sea, to break off the violence of the waves from the entrance of a harbour.

PIG *of ballast*, a large mass of cast-iron or lead, used for ballast.

PIKE. See HALF-PIKE.

PILLOW, a block of timber whereon the inner end of the bowsprit is supported.

PILOT, the officer who superintends the navigation, either upon the sea coast or upon the main ocean; it is, however, more particularly applied to the person charged with the ship's course on or near the sea-coast, and into the roads, rivers, bays, havens, &c. within his particular district.

Coasting PILOT, see the preceding article.

Branch PILOT, is one who is duly authorised by the Trinity board to pilot ships up particular channels and rivers.

PIN *of a block*, is the axis on which the sheaves revolve, being supported by the shell. See BLOCK.

Belaying PINS, pieces of wood or iron fixed in a kind of rail for making fast the small running rigging.

PINK, a name given to a ship with a very narrow stern, whence all vessels, however small, whose sterns are fashioned in this manner are called PINK-*sterned*; see

PINNACE, a small vessel, navigated with oars and sails, and having generally two masts rigged like those of a schooner.

PINNACE, is also a boat usually rowed with eight oars. See BOAT.

PINTLES, certain pins or hooks fastened upon the back part of the rudder, with their points downwards in order to enter into and rest upon the googings fixed on the stern-post to support the rudder; see HELM.

PIRATE, a sea-robber, or an armed ship that roams the seas without any legal commission, and seizes or plunders every vessel she meets indiscriminately; the colours usually displayed by pirates are said to be a black field with a death's head, a battle-axe and hour-glass.

PIRACY, is the seizing or plundering a vessel on the high seas, without having a commission for that purpose.

PISS-DALE, a place set apart on each side of a ship of war, for the people to piss in, to prevent the decks being wetted in other places.

PITCH, is a resinous substance of a yellow colour, more or less inclining to brown, and is produced from a particular kind of fir; it is used in caulking a ship to fill the chinks or intervals between the planks of her sides, decks, or bottom.

To PITCH *the seams.* See PAY.

PITCHING, is the vertical vibration which the length of a ship makes about her center of gravity, or the movement by which she plunges her head and after-part alternately into the hollow of the sea.

PLANE, is a term used by shipwrights, implying the area, or imaginary surface contained within any particular outlines, as, the *plane of elevation*, the *plane of projection*, the *horizontal plane*.

PLANKING, the act of covering and lining the sides of a ship with planks, which is sometimes by the artificers, called *laying on the skin*.

PLAT, a sort of plaited cordage formed of the yarns of old rope twisted into foxes; it is used to wind about that part of the cable which lies in the hawse-hole, where it would otherwise be greatly injured by the continual friction produced by the agitation of the ship in stormy weather. See FRESHEN and SERVICE.

PLATFORM, is a number of planks laid together forming a kind of floor for any temporary or particular purpose.

PLATE, is a flat piece of iron used on various occasions.

Back-stay PLATE, is a piece of iron used instead of a chain to confine the lower dead-eye of the back-stay.

Foot-hook, or *Futtock*-PLATES, are iron bands fitted to the lower dead-eyes of the top-mast shrouds, which, passing through holes in the edge of the top, are attached to the upper ends of the futtock-shrouds.

PLEASURE-BOAT, a boat fitted up for receiving company to sail up and down a river, harbour, or lake, &c.

PLUG, a piece of timber formed like the frustrum of a cone, and is used for different purposes, as,

Hawse-PLUGS, are made to stop the hawse-holes when the cables are unbent, or not in them; their use is to prevent the water coming in when the ship pitches.

Shot-PLUGS, are used to stop the breaches made in the body of a ship by cannon-balls, and are formed of various sizes, according to the different sizes of shot.

PLUNDER, a name given to the effects of the officers and crew of a prize, when pillaged by the captors.

PLYING, the act of making, or endeavouring to make a progress against the direction of the wind, hence—

A good PLYER, is a vessel that makes great advances in this manner of sailing.

POINT, a low arm of the shore which projects into the sea, or into a river beyond the contiguous part of the beach.

POINT-*Blank*. See RANGE.

To point a gun, to direct it towards any particular object or point.

To POINT *a sail*, to affix points through the eyelet holes of the reefs. See POINTS.

POINT-

POINTING, is the operation of tapering the end of a rope, and weaving some of its yarns into a kind of mat about the diminished part of it, so as to thrust it more easily through any hole, and prevent it from being untwisted (plate 8, fig. 116.): in ships of war it is customary to point the ends of almost all the ropes.

POINTS, flat pieces of braided cordage, tapering from the middle towards each end, whose lengths are nearly double the circumference of the yard, and used to reef the courses and top-sails of a square-rigged vessel; they are fixed to the sails by passing one through every eyelet hole in the reef-bands, and making two knots upon it, one on each side of the sail, to prevent its falling out See REEF.

POLACRE, a ship with three masts, usually navigated in the Mediterranean; each of the masts are commonly formed of one piece, so that they have neither tops or cross-trees, neither have they any horses to their upper yards, because the men stand upon the top-sail yards to loose or furl the top-gallant-sails, and upon the lower yards to loose, reef, or furl the top-sails, the yards being lowered sufficiently down for that purpose.

POLE-AXE, a sort of hatchet, nearly resembling a battle-axe, having a handle about fifteen inches long, and being furnished with a sharp point, bending downwards from the back of its head. It is principally used to cut away the rigging of an adversary who endeavours to board. They have also been sometimes employed in boarding an enemy whose hull was more lofty than that of the boarders, by driving the points into her side, one above another, and thereby forming a kind of scaling-ladder; whence they are sometimes called *Boarding-axes*.

POLE-*mast*. See MAST.

Under bare POLES, the situation of a ship at sea, when all her sails are furled. See SCUDDING and TRYING.

POMIGLION, a name given by seamen to the cascabel, or hindmost knob of a cannon. See CANNON.

PONTOON, a large low flat vessel, nearly resembling a barge of burthen, and furnished with cranes, capsterns, tackles, and other machinery necessary for careening ships; these are principally used in the Mediterranean.

POOP, the highest and aftmost deck of a ship. See DECK.

POOP *Royal*, a short deck, or platform, placed over the aftmost part of the poop in the largest of the French and Spanish men of war, and serving as a cabin for their masters and pilots. This is usually called the *top-gallant-poop* by our shipwrights.

POOPING, the shock of a high and heavy sea upon the stern or quarter of a ship, when she scuds before the wind in a tempest. This circumstance is extremely dangerous to the vessel, which is thereby exposed to the risk of having her whole stern beat in, by which she would be laid open to the entrance of the sea, and most probably founder.

POOPING, implies also the action of one ship running her stem against another's stern.

A POOPING-*sea*, a heavy stern sea.

PORT, a harbour or haven on the sea-coast.

PORT, is also a name given, on some occasions, to the larboard or left side of the ship; as in the following instances:—

The ship heels to PORT, i. e. stoops or inclines to the larboard side.

Top the main-yard to PORT, the order to sway the larboard extremity of that yard higher than the other. See TOPPING.

PORT *the helm*, the order to put the helm over to the larboard side of the vessel, when going large.

In all these cases this word appears intended to prevent any mistakes happening from the similarity of sounds in the words starboard and larboard, particularly when they relate to the helm, where a misapprehension might be attended with very dangerous consequences: accordingly the word larboard is never used in *conning*.

PORT-

PORTLAST, or PORTOISE, is synonimous with *Gunwale*; as,

Lower the yards a PORTLAST, that is, down to the gunwale.

To ride a PORTOISE, is to have the lower yards and topmasts struck, or lowered down, when at anchor in a gale of wind.

PORTS, the embrasures or openings in the side of a ship of war, wherein the artillery is ranged in battery upon the decks, above and below.

PORTLIDS, a sort of hanging doors, to shut in the ports at sea; they are fastened by hinges to the upper edges, so as to let down when the cannon are drawn into the ship, whereby the water is prevented entering the lower decks. They are more generally termed *ports*.

Gun-room PORTS, are situated in the ship's counter, and are used for stern-chases, and also for passing a small cable or a hawser out, either to moor, head and stern, or for a spring upon the cable, &c. See *to* MOOR and SPRING.

Half PORT, a kind of shutter, with a circular hole in the center, large enough to go over the muzzle of the gun, and furnished with a piece of canvas, nailed round its edge, to tie upon the gun, whereby the water is prevented entering at the port although the gun remains run out. They are principally used upon the main-deck, and particularly in ships carrying only one tier of cannon.

Lower-deck PORTS, are those on the lowest gun-deck.

Middle-deck PORTS, are those on the second or middle gun-deck of three-deckers.

PORT-*bars*, strong pieces of oak, furnished with two lanyards or ropes, by which the ports are secured from flying open in a gale of wind, the bar resting against the inside of the ship and the port being firmly lashed to it by its two ring-bolts.

PORT-*ropes*, ropes made fast to the outside of the portlids, and communicating with a tackle within, by which the portlids are occasionally drawn up.

PORT-

PORT-*tackles*, are those mentioned in the preceding article, as serving to haul up or open the ports.

POWDER-*chests*, certain small boxes charged with powder and old nails, &c. and fastened occasionally on the decks or sides of merchant-ships, when furnished with close-quarters, having a train of powder which communicates with the inner apartments, so as to be fired at pleasure to annoy the enemy.

PRAM, or PRAME, a sort of lighter, used in Holland and the ports of the Baltic Sea, for loading and unloading ships.

PRATIC, or PRATIQUE, implies the permission to trade and communicate with the natives of any place, after having performed the required quarantine.

PRESS *of sail*, signifies as much sail as the then state of the wind, &c. will permit a ship to carry.

PRESS'D-MAN, one who has been impressed into the King's service, in contradistinction to a volunteer.

PRESS-*gang*, a detachment of seamen, who (under the command of a lieutenant) are empowered, in time of war, to take any seafaring men, and oblige them to serve on board the King's ships.

PREVENTER, an additional rope employed at times to support any other, when the latter suffers an unusual strain, particularly in a strong gale of wind.

PREVENTER-*brace*, a temporary brace, fixed occasionally, to succour the main or fore-yard, or to supply the place of the usual braces, in the event of their being shot away in action.

PREVENTER-*stay*, is a smaller stay, fixed above the standing one, and serves to relieve the latter, or to supply its place.

PREVENTER-*shrouds*, are applied to serve the same purposes.

PRICK, is a term applied to a *roll* of small rope, &c. as a prick of spun-yarn, a prick of tobacco.

PRICKING *a chart*, the act of tracing a ship's course upon a marine chart, by the help of a scale and compasses, so as to discover her present situation.

PRICKING *a sail*, is the running a middle seam between the two seams which unite every cloth of a sail to the next adjoining, and is rarely performed till the sails have been worn some time.

To PRIME *a fire-ship*, is to lay the train, and get her in readiness for being set on fire.

PRIMING, the train of powder which is laid from the opening of the touch-hole of a cannon, &c. along the cavity on the breech, in order to fire the piece.

PRIMING-*wire*, or PRIMING-*iron*, a sort of iron needle employed to penetrate the touch-hole of a cannon when it is loaded, in order to pierce the cartridge, and as a rammer to charge the touch-hole with powder.

PRIVATEER, a vessel of war, armed and equipped by particular merchants, and furnished with a military commission from the state to cruize against and annoy the enemy, by taking, sinking, or burning their shipping.

PRIZE, a vessel taken from the enemy.

PRIZE-*money*, the profits arising from the sale of such prize.

PRIZING, the application of a lever to move any weighty body, as an anchor, &c.

PROMONTORY, a high cape, or head-land.

PROTEST, an instrument drawn up in writing, and attested before a justice of the peace (or a consul or vice-consul, in foreign parts), by the master of a merchant-ship and a part of the ship's crew, after the expiration of a voyage, describing the severity of the voyage, whereby the ship has suffered, or may suffer, in her hull, rigging, or cargo. It is chiefly intended to shew that such damages did not happen through any neglect or misconduct of the master or his officers, &c.

PROVOST-*martial*, an officer appointed to take charge of prisoners at a court-martial.

PROW, a name given by seamen to the beak or pointed cutwater of a xebec, galley, &c. The upper part of the prow is usually furnished with a grating platform.

PUD-

PUDDING, or PUDDENING, (fig. 59, pl. 3.) a thick wreath or circle of cordage, tapering from the middle towards the ends, pointed all over, and fastened about the main and fore-masts of a ship, directly below the trusses, to prevent the yards from falling down, when the ropes by which they are usually suspended are shot away in battle. PUDDENING, is also sometimes placed on a boat's stem, as a kind of *fender*.

PULLING, implies the act of rowing with the oars; as, "PULL *the starboard oars*," "PULL *together*," &c.

PUMP, a well-known machine, used to discharge the water from the ship's bottom into the sea.

Chain-PUMP, consists of a long chain, equipped with a sufficient number of valves, at proper distances, which working upon two wheels, one above and the other below, passes downward through a wooden tube, and returns upwards through another. It is managed by a long winch, whereon several men may be employed at once, and thus it discharges, in a limited time, a much greater quantity of water than the common pump, and with less fatigue and inconvenience to the labourers. This has been fully proved by experiment, when two men discharged a tun of water in 55 seconds.

Hand-PUMP, is the distinctive appellation of the common small pump.

Head-PUMP, a moveable pump, to put over the bows or side. These were formerly used in the Navy, to pump water into the ship for washing the decks, &c. but since the invention of a cistern in the well, they are quite disused. See CISTERN.

PUMP-*hood*. See HOOD.

PUMP-*brake*, the wooden lever or handle by which a hand-pump is worked.

PUMP-*bolts*, two pieces of iron, with a knob at one end, and a hole for a pin or forelock in the other; one serves to fasten the pump-spear to the brake, and the other as a fulcrum for the brake to work upon.

PUMP-

PUMP-*dales*, long wooden tubes, extending from the chain-pumps across the ship, and through the side, serving to discharge the water without wetting the decks.

PUMP-*gear*, any materials requisite for fitting or repairing the pumps, as boxes, leather, &c.

PUMP-*spear*, that bar of iron which, communicating with the upper box, is also attached to the end of the brake, whereby the former is put in motion.

PUNT, a sort of flat-bottomed boat, whose floor resembles the platform of a floating-stage. They are used in calking, breaming, or repairing the bottom of a ship, and in shallow rivers.

PURCHASE, a name given to any sort of mechanical power employed in raising or removing heavy bodies, or in fixing or extending the ship's rigging, such are the tackles, windlasses, winches, capsterns, screws, and handspikes.

PURSER, an officer appointed by the Lords of the Admiralty to take charge of the provisions of a ship of war, and to see that they are carefully distributed to the officers and crew, according to the general printed Naval Instructions.

PURSER'S *Steward*. See STEWARD.

Q.

QUADRANT, an instrument used to take the altitude of the sun or stars at sea, and thereby to determine the latitude of the place, or the sun's azimuth, so as to ascertain the magnetical variation; and also to take horizontal angles for various purposes. Of the different kinds of instruments known by this name, the most useful is that called Hadley's quadrant, of which the sextant is an improvement. See SEXTANT. The quadrant is so denominated from its serving to measure any angle, not exceeding 90 degrees, although its arch is only the eighth part of a circle, whence some have termed it an *octant*.

QUARANTINE, the state of persons who are prevented from having a free communication with the inhabitants of any country till the expiration of an appointed time, in order to prevent the importation of the plague, or any other infectious disorder. See LAZARETTO.

QUARTER, that part of a ship's side which lies towards the stern, or which is comprehended between the aftmost end of the main chains, and the sides of the stern, where it is terminated by the quarter-pieces.

On the QUARTER, may be defined a point in the horizon considerably abaft the beam, but not in the direction of the ship's stern. See BEARING.

QUARTER-*bill*, a list, containing the different stations to which the officers and crew are quartered in time of battle, with the names of all the persons appointed to those stations.

QUARTER-*badge*. See BADGE.

QUARTER-*cloths*, long pieces of painted canvas, extended on the outside of the quarter-netting, from the upper part of the gallery to the gangway.

QUAR-

QUARTER-*deck*. See DECK.

QUARTER-*gallery*, a sort of balcony on the quarters of ships, generally communicating by doors with that on the stern. See GALLERY.

QUARTER-*gunner*. See GUNNER.

QUARTER-*master*, an inferior officer, appointed to assist the mates in their several duties, as stowing the hold, coiling the cables, attending the steerage, and keeping time by the watch-glasses.

QUARTER-*master's-mate*, an officer subordinate to the preceding.

QUARTER-*netting*. See NETTING.

QUARTER-*rails*, are narrow-moulded planks, reaching from the top of the stern to the gangway, and serving as a fence to the quarter-deck.

QUARTERING-*wind*. See SAILING.

QUARTERS imply the several stations where the officers and crew of a ship of war are posted in time of action; the lieutenants are usually quartered on the different decks to command the batteries; the master superintends the management of the ship; the boatswain, and a sufficient number of men are stationed to repair the damaged rigging; the gunner, usually on the lower gun-deck; and the carpenter, with his mates and crew, in the wings on the orlop. The marines are generally quartered on the poop and forecastle, or gangway, under the direction of their officers, although, on some occasions, they assist at the great guns, particularly in distant cannonading; and the great body of the seamen are stationed at the cannon, or in the tops; while the captain is ever on the quarter-deck, giving directions to all around, and animating every one by his example.

QUARTERS, is also an exclamation to implore mercy from a victorious enemy.

QUARTERS *of the yards*, the space comprehended between the slings or middle, and the outer-parts or yard arms.

QUARTER-*tackle*, a strong tackle fixed occasionally upon the quarter of the main-yard, to hoist heavy bodies in or out of the ship.

QUAY, or KEY, a place to land goods upon.

QUICK-SAND, a loose sand into which a ship sinks by her own weight as soon as the water retreats from her bottom.

QUICK-*work*, generally signifies all that part of a ship which is under water when she is laden; it is also applied to that part of the side which is above the sheer-rail.

QUILTING, the operation of weaving a kind of coating formed of the strands of rope about the outside of any vessel to contain water as a jar, bottle, &c.

QUOIN, *a* wedge, *q*, fig. 78, pl. 7, employed to raise the cannon to a proper level, that it may be more truly directed to the object.

QUOINS, are also employed to wedge off casks of liquids from each other, that their bilges may not rub so as to occasion a leak by the agitation of the ship at sea.

R.

RABBIT, a deep groove or channel, cut in a piece of timber longitudinally to receive the edge of a plank, or the ends of a number of planks, which are to be securely fastened therein.

RACE, a particularly strong tide or current.

RACK, a frame of timber containing several sheaves, and usually fixed on the opposite sides of a ship's bowsprit, to direct the sailors to the respective ropes passing through it.

RACKING *a tackle*, the fastening two opposite parts together with a seizing, so as that any weighty body suspended thereby shall not fall down although the tackle-fall should be loosened by accident or inattention.

RAFT, a sort of float formed by an assemblage of various planks or pieces of timber, fastened together side by side, so as to be conveyed more commodiously to any short distance in a harbour or river, than if they were separate.

RAFT-*port*, a square hole cut through the buttocks of some ships immediately under the counter to load or unload the planks and pieces of timber, which, on account of their great length, could not be got in or out otherways.

RAG-BOLT, an iron pin, having several barbs cut on its shank to retain it in the wood when driven.

RAILS, are narrow planks nailed for ornament on several parts of a ship's upper works, as drift-rails, fife-rails, sheer-rails, waist-rails, &c. some of which are also intended as a fence to prevent the sailors from falling overboard.

RAILS *of the head*, curved pieces of timber, extending from the bows on each side to the continuation of the ship's stem, to support the knee of the head, &c.

To RAISE, to elevate any distant object at sea by a gradual approach towards it, which effect is produced by the convex surface of the sea; this term is opposed to LAYING, which see.

RAISING *a purchase*, the act of disposing certain instruments or machines in such a manner as that, by their mutual effects, they may produce a mechanical force sufficient to overcome the weight or resistance of the object to which this machinery is applied.

RAKE, the projection of the upper parts of a ship at the height of the stem and stern beyond the extremities of the keel; thus, if a plummet is hung from the top of a ship's stern so as to be level with the continuation of the keel, the distance between the after-end of the keel and the plummet will be the length of the rake of the stern.

RAKE is also applied to the masts when they are out of a perpendicular situation, as, that ship's main-mast *rakes* aft.

RAKING, the act of cannonading a ship on the stern or head, so as that the balls shall range the whole length of the decks, which is one of the most dangerous incidents that can happen in a naval action; this is frequently called *raking fore and aft*, and is similar to what is termed by engineers *enfilading*.

RAMMER, is a cylindrical block of wood nearly fitting the bore of a cannon, and fastened on a wooden staff, or on a stiff-rope well served with spun yarn. It is used to drive the charge of a cannon home, or to the innermost part of it; the rope-rammers are most general in ships of war, *a*. fig. 80, pl. 7.

RANDOM-*shot*. See RANGE.

RANGE, a sufficient length of the cable drawn upon the deck before the anchor is let go, that, by its sinking to the bottom without being interrupted, the flukes may be forced deeper into the ground, therefore the range drawn up out of the tier ought to be equal in length to the depth of the water where the ship anchors.

RANGE, is also the distance to which a bomb or a cannon-ball is thrown from a piece of artillery by the explosion of gunpowder.

The flight of a shot is distinguished by artillery-men into two different ranges, of which the first is called the *point-blank*, and the second the *random shot*; to these also may be added the *ricochet*, or rolling and bounding shot. The point-blank-range is the extent of the apparent right line described by a ball discharged from a cannon.

The Random shot, is, when by letting the breech down upon the bed of the carriage the ball is carried to its greatest possible distance, and describes a curve in its flight.

The ricochet, is fired by elevating the piece from three to six degrees, and only charging it with a quantity of powder sufficient to carry the shot along the face of the works attacked; the shot, thus discharged, so as to go just over the parapet rolls, and bounds about, killing, maiming, or destroying, all it meets in its course, and

and creating much more disorder by going thus slowly than if thrown from the piece with greater violence. As one of the effects of the bomb results from its weight, the range of mortars is extremely different from that of cannon, because the former is not pointed at a certain object like the latter, but inclined to the horizon at a certain angle, so that the bomb being thrown up obliquely, may fall upon the place intended; hence, it appears that the mortar has no point-blank-range, or at least that no use is made of it. To make a bomb fall on a given place, two things are to be considered, viz. the elevation of the mortar and the quantity of powder used to charge it; respecting the former a bomb will be thrown to the greatest distance when the elevation of the mortar is 45 degrees, it being the half of 90 degrees or a right angle, that is equally distant from the horizon and the zenith; hence it follows, that if a mortar is elevated any number of degrees above 45, it will throw the shell to the same distance as if depressed an equal number of degrees below 45: Where weight is required, as for the destruction of any building, the mortar should be elevated as much as possible for the distance, but when the business is to fire on a body of men it must be pointed as much below 45 that the bomb may not have force to penetrate far into the ground, and the splinters in the explosion may do more execution.

To RANGE, is to sail in a parallel direction and near to, as, we *ranged* the coast: the enemy came *ranging* up along side of us.

RATE, the order or classes into which the ships of war are divided in the navy, according to their force and magnitude; thus, the

First-RATE comprehends all ships of 100 guns and upwards, with 850 to 875 men.

Second-RATE, includes all ships carrying from 90 to 98 guns; the company 700 to 750 men.

Third-RATE, consists of ships from 80 guns down to 64, carrying from 650 to 500 men; all the above are termed ships of the line, being such as are stationed in the line of battle; but 64's are now growing out of use in the line, except in the North Seas.

Fourth-RATE, is composed of ships from 50 to 60 guns, with 380 to 420 men.

Fifth-RATE, comprehends ships of 44 guns to frigates of 32: men, 300 to 220.

Sixth-RATE, contains all ships from 30 to 20 guns, with crews of 200 to 160 men. The whole of these rates are termed *post* ships, i. e. their commander is a post captain, while those captains commanding vessels under 20 guns are denominated MASTERS and COMMANDERS, which See. This last rate is generally said to comprehend all brigs, sloops of war, cutters, schooners, &c. carrying from 6 to 18 guns, but it is only true with respect to their pay, the rest of their establishment of officers and crew varying according to their force and magnitude, many of them being commanded by lieutenants, and, some, such as gun-boats, &c. by midshipmen who have *passed* for lieutenants.

RATLINGS, small lines which traverse the shrouds of a ship horizontally at regular distances from the deck upwards, and forming a variety of ladders whereby to climb to or descend from any of the mast-heads.

To RATTLE *down the shrouds*, is to fix the ratlings to them.

REACH, the distance comprehended between any two points on the banks of a river wherein the current flows, in a straight uninterrupted course.

REAR, a name given to the last division of a squadron, or the last squadron of a fleet, and which is accordingly commanded by a third officer of the said squadron or fleet.

Dead RECKONING, the account of the ship's course and distance calculated from the log-board without the assistance of a celestial observation.

REEF,

REEF, a certain portion of a sail comprehended between the top or bottom and a row of eyelet holes generally parallel thereto. The intention of the reef is to reduce the surface of the sail in proportion to the increase of the wind, for which reason there are several reefs parallel to each other in the superior sails; thus the top-sails of ships are generally furnished with three reefs, *l*, *m*, *n*, fig. 63, pl. 4, and sometimes four, and there are always three or four reefs parallel to the foot or bottom, of those main-sails and fore-sails which are extended upon booms.

REEF, also implies a chain of rocks lying near the surface of the water.

REEF-*band*, a piece of canvas sewed across the sail to strengthen it in the place where the eyelet holes of the reefs are formed.

REEFING, the operation of reducing a sail by taking in one or more of the reefs, and is either performed with lines, points, or knittles. In order to reef the top-sails with more facility and expedition, they are lowered down and made to shiver in the wind; the extremities of the reef are then drawn up to the yard-arms by the reef tackles, where they are securely fastened by the earings; the space of sail comprehended in the reef is then laid smoothly over the yard in several folds, and the whole is completed by tying the points about the yard so as to bind the reef close up to it. In reefing a course the after-end of the point should be thrust forward between the head of the sail and the yard, and the fore leg of the same point should come aft over the head of the sail and also under the yard, and thus crossed over the head of the sail the two ends should be tied on the upper side of the yard as tight as possible. When a sail is reefed at the bottom it is generally done with *knittles* in the room of *points*, or in large sails such as the main-sails of armed cutters, pieces of *line* termed reef-hanks, are fixed in the eyelet holes; for other methods of reducing a sail see BALANCE and GOOSEWING.

REEF-

REEF-*line*, a small rope, by which they formerly reefed the courses, by passing it spirally through the holes of the reef, and over the head of the sail, alternately, from the yard-arms to the slings, and then straining it as tight as possible.

REEF-*tackle*, a tackle upon deck, communicating with its pendant, which passing through a block at the top-mast head, and through a hole in the top-sail-yard-arm, is attached to a cringle a little below the lowest reef (*i*, *k*, fig. 68, plate 4). Its use is to pull the skirts of the top-sails close up to the extremities of the top-sail-yards, in order to lighten the labour of reefing.

Close REEFED, is when all the reefs of the top-sails are taken in.

REELS, are machines moving round an axis, and serving to wind various lines upon, (see fig. 63, pl. 6); as the

Deep-sea REEL, that which contains the deep-sea line.

Log REEL, that appropriated for the log-line.

Twine REEL, *Yarn* REEL, &c.

To REEVE, is to pass the end of a rope through any hole, as the channel of a block, the cavity of a thimble, cleat, ring-bolt, cringle, &c.

REFRACTION, is that property of the atmosphere which, by bending the rays of light in their passage to the eye, causes the altitude of heavenly bodies to appear greater than it really is, especially near the horizon.

REFITTING, is generally understood to imply the repairing any damages which a ship may have sustained in her sails or rigging by battle or tempest, but more particularly by the former.

REGULATING *Captain*, an officer whose duty it is to examine the seamen intended for the Navy, whether pressed or volunteers.

REIGNING *winds*, a name given to the winds which usually prevail on any particular coast or region.

RE-

RELIEVING *tackles*, two strong tackles, furnished with guys and pendants, which passing under the ship's bottom to the opposite side, are attached to the lower gun-ports, the tackles being hooked to the wharf or *pontoon*, by which the vessel is careened. They are used to prevent a ship from overturning on the careen, and to assist in bringing her upright after that operation is finished.

RELIEVING *tackles*, are also those which are occasionally hooked to the tiller in bad weather or in action, when the wheel or tiller-rope is broken or shot away.

RELIEVING *tackle*, is also a name sometimes given to the train-tackle of a gun-carriage.

RENDERING. is usually expressed of a complicated tackle, laniard or lashing, when the effect of the power applied is communicated with facility to all the parts without being interrupted. It is therefore used in contradistinction to *jamming* or *sticking fast*.

RENDEZVOUS, the port or place of destination where the several ships of a fleet or squadron are appointed to join company, or to rejoin in case of separation.

RENDEZVOUS, is also a name given to any house where a press-gang resides, and volunteers are invited to enter into the Navy.

REPAIR, the operation of amending any injuries, or supplying any deficiencies which a ship may suffer from age, battle, storm, accident, &c.

To REPEAT *signals*, is to make the same signals with the Admiral, in order to its being more readily distinguished at a distance, or through smoke, &c.

To REPEAT *a signal*, sometimes implies to make a signal over again, on account of its not having been attended to the first time. The *repeat* is usually accompanied with a gun.

REPEATING-*ship*, is a vessel (usually a frigate) appointed to attend each Admiral in a fleet, and to repeat every signal he makes, with which she immediately sails the whole length of the fleet or squadron, if the

the signal is general, or to the ship for which it is intended, if particular, and then returns to her station near the Admiral's ship.

REPRISAL, is the retaking a vessel from the enemy soon after the first capture, or at least before she has arrived in any neutral or hostile port. If a vessel thus retaken has been twenty-four hours in the possession of the enemy, she is deemed a lawful prize; but if retaken within that time, she is to be wholly restored to the owner, upon his allowing one-third of her value for *salvage* to the recaptors: also if a vessel has from any cause been abandoned by the enemy, before he has taken her into any port, she is to be restored to the original proprietor. See SALVAGE.

RETREAT, the order or disposition in which a fleet or squadron declines engagement, or flies from a pursuing enemy.

RHOMB-*line*, a line prolonged from any point of the compass, on a nautical chart, except the four cardinal points.

RIBBANDS, in naval architecture, long narrow flexible pieces of timber, nailed upon the outside of the ribs from the stem to the stern-post, so as to encompass the ship lengthways; of these the principal are the

Floor-RIBBAND, which terminates at the height of the rising line of the floor; and the

Breadth-RIBBAND, which coincides with the wing transom, at the height of the lower deck; all the rest are termed intermediate ribbands.

RIBS *of a ship*, a figurative expression for the timbers.

RIBS *of a parrel*, (*c*, fig. 57, pl. 3.) are short pieces of plank, each having two holes in it, through which the two parts of the parrel-rope are reeved, the inner smooth edge of the rib resting against and sliding readily up and down the mast. See PARREL.

To RIDE, signifies to be held in a particular situation by one or more anchors and cables.

To

To RIDE *athwart*, or *between wind and tide*, is when the wind and tide are in opposition, but so nearly equal in their force that the ship lies with the tide running against one side, and the wind blowing upon the other.

To RIDE *head to wind*, is when the wind is so much more powerful than the tide as to cause the ship to swing till her head is in the direction of the former.

To RIDE *out a gale*, signifies that the ship does not drive during the storm.

To RIDE *easy*, is said of a ship when she does not labour or feel a great strain upon her cables.

To RIDE *hard*, is, on the contrary, to pitch violently in the sea, so as to strain her cables, masts, or hull.

To RIDE *a head-rope of a sail*, &c. is to shake and stretch it by treading upon it, while a purchase is employed at the end to extend it.

A rope is said to *ride*, when one of the turns by which it is wound round lies over another, so as to interrupt the operation or prevent its rendering.

RIDERS, a sort of interior ribs, fixed occasionally in a ship's hold, opposite to some of the principal timbers to which they are bolted, and reaching from the kelson to the beams of the lower deck, and sometimes higher, in order to strengthen her frame.

As they are scarfed to each other in the same manner as the timbers, so they have similar distinctive appellations, as the

RIDER *futtocks*,
Lower futtock RIDERS,
Middle futtock RIDERS,
Upper futtock RIDERS,
} See FUTTOCKS.

Floor RIDERS, See FLOOR.

These pieces are rarely used in merchant-ships, on account of the space they occupy in the hold, neither are they generally used in vessels of war, at least till the ship is enfeebled by service.

RIDGE, a long narrow assemblage of rocks, lying near the surface of the sea. See REEF and SHALLOW.

To

To RIG, is to fit the shrouds, stays, braces, &c. to their respective masts and yards.

To RIG *in a boom*, is to draw it in from a situation upon the end of a yard or bowsprit, &c.

To RIG *out a boom*, is to run it out upon the end of a yard, bowsprit, or another boom, &c. to extend the foot of a sail.

RIGGERS, men who make a livelihood by going on board ships to fit the standing and running rigging. It is also a name given in the Navy to any party of men sent to the rigging-loft or hulk to prepare the standing rigging for putting over the mast-heads.

RIGGING, a general name given to all the ropes employed to support the masts, and to extend or reduce the sails, or arrange them to the disposition of the wind,

Standing RIGGING, is that which is used to sustain the masts, and remains in a fixed position; as the shrouds, stays, and back-stays.

Running RIGGING, is that whose office is to manage the sails, by passing through various blocks in different places about the masts, yards, shrouds, &c. as the braces, sheets, haliards, clewlines, &c. &c.

Lower RIGGING, is that which attaches to the lower masts.

Top-mast RIGGING, consists of the top-mast shrouds, stays, and back-stays.

Top-gallant RIGGING, is fixed to the top-gallant-masts.

RIGGING-*loft*, a kind of long room or gallery in a dock-yard, where the standing rigging is fitted by stretching, serving, splicing, seizing, &c. to be in readiness for the ship.

RIGHTING, the act of restoring a ship to her upright position after she has been laid upon a careen, which is effected by casting loose the careening-tackles, and if necessary heaving upon the relieving-tackles.

A ship is also said to RIGHT at sea, when she rises with her masts erect after having been pressed down on one side by the effort of the wind upon her sails.

To

To RIGHT *the helm*, implies to replace it in the middle of the ship, after having put it out of that position.

RIM, or BRIM, a name given to the circular edge of a top. See TOP.

RING-*bolt*, an iron bolt, with an eye at one end, wherein is fitted a circular ring. They are used for various purposes, but more particularly for managing and securing the cannon.

RING-*ropes*, short pieces of rope, tied occasionally to the ring-bolts of the deck, to stopper or fasten the cable more securely when the ship rides with a heavy strain.

RING-*tail*, a quadrilateral sail, extended on a small mast, which is occasionally erected for that purpose on a ship's taffarel, the lower part being stretched out by a boom, which projects over the stern horizontally.

RING-*tail*, is also the name of a kind of studding-sail hoisted beyond the after-edge of those sails, which are extended by a gaff and a boom over the stern. The two lower corners of this sail are stretched out to a boom, called a

RING-TAIL *boom*, which rigs in and out upon the main or driver boom, in the same manner that a studding-sail boom does on the top-sail yards.

RIPLING, a broken and interrupted noise, produced by a current on or near the sea-coast; the effect of which is also apparent to the eye, by occasioning an ebullition or bubbling up of the water.

RISING-*line*, a name given by shipwrights to an incurvated line, drawn on the plane of elevation, to determine the height of the ends of all the floor-timbers throughout the ship's length, and which accordingly ascertains the figure of the bottom with regard to sharpness or flatness.

ROAD, or ROAD-*stead*, a bay, or place of anchorage, at some distance from the shore, on the sea-coast.

A good ROADSTEAD, is that which is protected from the reigning winds and the swell of the sea, has a good anchoring ground, and is at a competent distance from the shore.

An open ROAD, is one which is not sufficiently inclosed from the wind and sea.

ROADER, or ROADSTER, a vessel riding at anchor in a road, bay, or river; if a vessel under sail strike against any roader and damage her, the former is obliged by law to make good the damages sustained by the latter; roaders are careful to anchor at a competent distance from each other so as not to intercept each other's departure.

ROBANDS, or ROPE-BANDS, short flat plaited pieces of rope, having an eye worked in one end, they are used in pairs to tie the upper edges of the square sails to their respective yards, the long leg passing over the yard two or three times round, and the short leg coming under, is tied to it upon the yard.

ROCKY, composed or abounding in stone, slate, &c. as distinguished from sandy, muddy, &c.

A half-tide ROCK, a rock which appears above water at half-ebb.

ROGUES-*yarn*, a name given to a rope-yarn which is twisted in a contrary manner to the rest of a rope, and being tarred, if in a white rope, but white if in a tarred rope is easily discovered; it is placed in the middle of the strand in all cables or cordage made for the King's service to distinguish them from the merchant's cordage.

ROLLER, a cylindrical piece of timber, fixed either horizontally or vertically in different parts of a ship, so as to revolve about an axis; it is used to prevent the cables, hawsers, and running rigging from being chafed by lessening the friction they would otherwise sustain.

ROLLERS, are also moveable pieces of wood of the same figure, which are occasionally placed under boats, pieces of timber, &c. in order to move them with greater facility.

ROLLING, the motion by which a ship rocks from side to side like a cradle, occasioned by the agitation of the sea: many fatal disasters have arisen to ships from their violent rolling, as the loss of the masts, loosening

ening the cannon, and straining the decks and sides; it is therefore particularly necessary to guard against it as much as possible, not only in the construction of the bottom, but by causing the center of gravity of the ship to fall as near the load-water line as possible, which can only be effected by a judicious arrangement of the ballast or cargo.

ROLLING-*tackle*, a purchase occasionally fixed on the weather-quarter of a yard, in order to confine it and prevent its chafing when a ship roles heavily.

ROLLING-*hitch*. See HITCH.

ROOM, a name given to some particular apartment in a ship, as,

The cook-ROOM. See GALLEY.

The bread-ROOM, is in the aftermost part of the hold, being partitioned off and properly lined to receive the bread and keep it dry.

Gun-ROOM. See GUN.

Light-ROOM. See LIGHT.

Steward-ROOM, the apartment where the steward weighs, measures, and serves out the provisions to the ship's company; it is usually situated on the orlop-deck, adjoining to the bread-room.

Sail-ROOMS, are places on the orlop-deck inclosed for the reception of the sails; they are distinguished according to their relative situation, as, the fore sail-room, the after sail-room, &c.

Slop-ROOM. See SLOPS.

Store-ROOM. See STORES.

Spirit-ROOM, a space in the after-part of a ship's hold, set apart for the reception of wine, brandy, &c.

Ward-ROOM, a room over the gun-room in ships of war, where the lieutenants, and other principal officers sleep and mess.

ROPE-*bands*. See ROBANDS.

ROPE-*house*, a long building in a dock-yard where ropes are made.

ROPES, are a general name given to all sorts of cordage above one inch in circumference, used in rigging a ship.

ROPES are of two descriptions, viz.

Cable-laid, which are composed of nine strands, the three great strands containing each three small strands, and

Hawser-laid, which are made with three strands, each composed of a certain number of rope-yarns in proportion to its required thickness.

ROPE-*yarn*, the smallest and simplest part of any rope, being one of the threads of which a strand is composed, so that the size of the latter and of the rope in which it is twisted are determined by the number of rope-yarns.

ROVER, a pirate or freebooter. See PIRATE.

ROUGH-*tree*, a name given in merchant ships to any mast, yard, or boom, placed as a rail or fence above the ship's side, from the quarter-deck to the forecastle; it is, however, with more propriety, applied to any mast, &c. which remaining rough and unfinished, is placed in that situation.

ROUND-*house*, a name given in East-Indiamen and other large merchant ships, to a cabin or apartment built on the after-part of the quarter-deck, and having the poop for its roof; this apartment is frequently called the *coach* in ships of war.

ROUND-*house* is also a name given on board ships of war to certain necessaries built near the head, for the use of the mates, midshipmen, and warrant-officers.

ROUNDING, old ropes wound firmly and closely about that part of a cable which lies in the hawse, or athwart the stem, &c. It is used to prevent the cable from being chafed. See SERVICE.

ROUNDING-*in*, generally implies the act of pulling upon any slack rope which passes through one or more blocks in a direction nearly horizontal, and is particularly applied to the braces, as, "round in the weather-braces."

ROUNDING-*up*, is used nearly in the same sense, only that it is expressed of a tackle which hangs in a perpendicular direction, without sustaining or hoisting any weighty body, and is opposed to over-hauling.

ROUND *turn*, the situation of the two cables of a ship, which, when moored, has swung the wrong way three times successively. See HAWSE.

ROUND *turn*, is also the passing a rope once round a timber-head, &c. in order to hold on. See HOLDING ON.

To ROUSE, is to pull together upon a cable, &c. without the assistance of tackles, capsterns, or other mechanical powers.

To ROW, to impel a boat or vessel along the surface of the water by oars, which are managed in a direction nearly horizontal. See OAR.

Row *dry*, the order to those who row not to splash water into the boat with their oars.

Row-*galley*. See GALLEY.

Row-*locks*, those parts of a gun-wale, or upper edge of a boat's side whereon the oars rest in the exercise of rowing.

ROWED-*of-all*, the order for the rowers to cease and to lay their oars in the boat.

ROWERS, the persons by whom the oars are managed.

ROWING-*guard*. See GUARDBOAT.

Row-*ports*, little square holes cut in the sides of small vessels of war parallel to the surface of the water, for the purpose of rowing them in a calm.

ROYAL, the name of a sail spread immediately above the top-gallant-sail, to whose yard-arms the lower corners of it are attached; it is sometimes termed top-gallant-royal, and is never used but in fine weather.

RUDDER. See HELM.

Chocks of the RUDDER. See CHOCKS.

RUN, the aftmost part of a ship's bottom, where it grows extremely narrow as the floor approaches the stern-post.

RUN, is also the distance sailed by a ship.

RUN, is also used among sailors to imply the agreement to work a single passage from one place to another; as, from Jamaica to England, &c.

To RUN *down a coast*, is to sail along by it.

To RUN *down a vessel*, is to pass over her by running against her end-on, so as to sink her.

To RUN *out the guns*, is, by means of the tackles, to force their muzzles out of the port-holes.

To RUN *out a warp*, is to carry the end of a hawser out from the ship in a boat, and fasten it to some distant place to remove the ship towards that place, or to keep her steady whilst her anchors are lifted, &c.

To let RUN *a rope*, is to let it quite loose.

A RUN-*man*, implies a deserter from a ship of war.

RUNG-*heads*, a name sometimes given by ship-wrights to the upper ends of the floor-timbers, which are othewise more properly called *floor-heads*.

RUNNER, a thick rope used to encrease the mechanical power of a tackle. See TACKLE.

The runner passes through a large block, and has usually a hook attached to one of its ends, and one of the tackle-blocks to the other: In applying it, the hook of the runner, as well as the lower block of the tackle, is fixed to the object intended to be removed.

RUNNING-*fight*, a battle in which the enemy endeavours to escape, while the British ships continue to pursue within gun shot.

RUNNING-*rigging*, all that part of a ship's rigging which passes through blocks, &c. and is used in contra-distinction to *standing* rigging. See RIGGING.

The RUNNING *part of a tackle*, is synonimous with the *fall*, and is that part on which the power is applied to produce the intended effect.

S.

SADDLE, a small cleat or block of wood nailed upon the lower yard-arms, to retain the studding sail booms in a firm and steady position; for this purpose, the cavity on the lower part of the saddle conforms to the cylindrical surface of the yard to which it is attached, and in like manner the hollow on the upper side answers to the figure of the boom, and serves as a channel whereby it may be run out or in along the yard as occasion requires.

SADDLE, is also a name given to several circular pieces of wood, as the saddle of a bowsprit, saddle of a boom, &c.

SAGGING *to leeward*, the movement by which a ship makes a considerable lee-way, or is driven far to leeward of the course whereon she apparently sails. It is generally expressed of heavy sailing vessels as opposed to keeping well to windward, or, in the sea phrase, *holding a good wind*.

SAIC, a sort of Grecian ketch, which has no top-gallant sail nor mizen-top sail.

SAIL, an assemblage of several breadths of canvas or other texture sewed together, and extended on or between the masts to receive the wind and impel the vessel through the water.

The edges of the cloths or pieces of which a sail is composed, are generally sewed together with a double seam, and the whole is skirted round at the edges with a cord called the bolt-rope.

SAILS, are all contained either between three or four sides.

The former of these are sometimes spread by a yard as *lateen* sails, or by a stay as *stay*-sails, or by a mast as *shoulder of mutton* sails; in all which cases the fore-most leech

leech or edge is attached to the yard, mast, or stay throughout its whole length. The latter, or those which are four-sided, are either extended by yards, as the principal sails of a ship, or by yards and booms, as the *studding* sails, drivers, ringtails, and all those sails which are set occasionally: or by gaffs and booms, as the *main* sails of sloops and brigantines.

The principal sails of a ship (fig. 63, pl. 4.) are the courses or lower sails, *a*, the top sails, *b*, which are next in order above the courses, and the top-gallant sails, *c*, which are extended above the top sails.

The Courses are the main-sail, *a*, fig. 64, pl. 5. fore-sail and mizen 13. fig. 65. the sprit-sail, 1. 64. main-stay-sail, 1. fore-stay-sail, 8. and mizen-stay-sail, 9. fig. 65. but more particularly the three first.

In all quadrilateral sails the upper edge is called the head, the sides or skirts are called leeches, and the bottom or lower edge is termed the foot; if the head is parallel to the foot, the two lower corners are denominated *clues*, and the upper corners *earings*.

In all triangular sails, and in those four-sided sails wherein the head is not parallel to the foot, the foremost corner at the foot is called the *tack*, and the after lower corner the *clue*; the foremost edge is called the *fore-leech*, and the hindmost the *after-leech*.

The heads of most four-sided sails, and fore-leeches of lateen sails, are attached to their respective yard or gaff, by a number of small cords called robands, or by a lacing, and the upper extremities are made fast by earings.

The *stay*-sails are extended upon stays between the masts, whereon they are drawn up or down occasionally, as a curtain slides on its rod, and their lower parts are stretched out by a tack and sheet. The main-sail and fore-sail have a rope and a large single block made fast to each clue; the ropes called *tacks* lead forward to the chesstrees and bumkins, and the block receives a thick rope from aft, which is termed the *sheet*. The clues of the top-sails are drawn

drawn out to the extremities of the lower-yards by two large ropes called top-sail sheets, and the clues of the top-gallant sails are in like manner extended upon the top-sail yard-arms by ropes called top-gallant sheets.

The royals are set above the top-gallant sails, and the studding sails beyond the leeches or skirts of the main-sail and fore-sail, and of the top-sails and top-gallant-sails, their upper and lower edges being extended by small yards and by poles, run out beyond the extremities of the yards for this purpose. These sails are, however, only used in moderate weather.

All sails derive their name from the mast, yard, or stay upon which they are extended. Thus the principal sail extended upon the main-mast is called the main-sail, *a*, fig. 64, pl. 5. the next above which stands upon the main-top mast, is termed the main-top sail, *b*, and that which is spread across the main top-gallant mast is named the main-top-gallant sail, *c*. the sail above it is called the main-royal, *d*. In the same manner there is the fore-sail, *e*. fore top-sail, *f*. fore top-gallant sail, *g*, and fore-royal, *h*. the mizen, 13. fig. 65. mizen-top sail, *i*. fig. 64. mizen top-gallant sail, *k*, and mizen-royal, *r*.

Thus also there is the main-stay sail, 1, fig. 65. main top-mast-stay sail, 2. main top gallant-stay sail, 4. and a middle-stay sail, 3. (which stands between the two last); all these stay sails are between the main and fore-mast; the stay-sails between the main and mizen masts are the mizen-stay sail, 9. the mizen top-mast-stay sail, 10. the mizen top-gallant stay sail, 11. and sometimes a mizen royal-stay sail. The sails between the fore-mast and the bowsprit are the fore stay sail, 8. the fore top-mast-stay sail, 7. the jib, 6. and sometimes a flying jib, 5. and even a middle jib; there are besides two, and sometimes three, square sails extended by yards under the bowsprit and jib booms, one called the sprit-sail, l. fig. 64. the second, the sprit-sail top-sail, *m*. and the third, the sprit-sail top-gallant

gallant sail; the studding sails being extended upon the different yards of the main-mast and fore-mast, are also named according to their stations, the lower, as *n.* and *p.* fig. 64. top-mast, *o.* and *q.* or top-gallant studding sails, *s.* and *r.*

For the other sails of a ship, such as the DRIVER, GAFF TOP-SAIL, RINGTAIL, &c. see those articles.

The ropes by which the lower yards of a ship are hoisted up to their proper height on the masts are called the *jears*; in all other cases the ropes employed for this purpose are called *haliards*; hence the sails are expanded by *haliards, tacks, sheets,* and *bow-lines,*; and are drawn up together, or trussed up, by *bunt-lines, clue-lines, leech-lines, slab-lines,* and *spilling-lines,* the higher studding-sails and the stay-sails are drawn down so as to be taken in by *down-hauls,* and the courses, top-sails, and top-gallant sails, are wheeled about the mast so as to suit the various directions of the wind by *braces.*

SAIL is also a name applied to a vessel beheld at a distance under sail, as "We saw three sail in the North-East."

To set SAIL, is to expand the sails in order to begin the the action of sailing.

To loose SAILS, is to unfurl them, and let them hang loose to dry.

To make SAIL, is to extend an additional quantity of sail, so as to increase the ship's velocity.

To shorten SAIL, is to reduce or take in part of the sails.

To strike SAIL, is to lower it suddenly; which is particularly used in saluting or doing homage to a superior force, or to one whom the law of nations acknowledges as superior in certain regions. Thus all foreign vessels strike to an English man of war in the British Seas. See SALUTE.

SAILING, the movement by which a vessel is impelled through the water by the action of the wind upon her sails. The effect of sailing is produced by a judicious arrangement of the sails to the direction

of

of the Wind; accordingly, the various modes of sailing are derived from the different degrees and situations of the wind with regard to the course of the vessel.

In fig. 53, pl. 3. the direction of the wind being expressed by an arrow, the ships *b* and *y* are close hauled upon different tacks, and their yards braced obliquely. The ships *c* and *x* have the wind one point *large* or *free*, the yards remaining nearly in the same position as in *b* and *y*, only the *bow-lines* and sheets are a little slackened.

The ships *d* and *u* have the wind two points large, or upon the beam, and are sailing in opposite directions; the yards are now more across the ship, and the sheets more relaxed.

In *e* and *i* the ships have the wind three points large, or one point abaft the beam; the sheets are still more flowing, and the angle of the yards further diminished.

The ships *f* and *s* are four points, and *g* and *r* five points large, the sheets are still farther slackened and the yards braced more athwart the ship's length.

With *h* and *q* the wind is six points large, or more properly on the quarter, in which situation all the sails contribute to encrease the ship's volocity, the fore-tack being brought to the cat-head, the yards are so disposed as to make an angle of about two points with the keel.

The ships *i* and *p* have the Wind three points, and *k* and *o* two points on the quarter, the yards making an angle of about one point and a half; when the wind is one point on the quarter, as at *l* and *n*, the yards make an angle of less than one point.

The ship *m* sails right before the wind, the yards being at right angles with the ship's keel, the stay-sails become useless and are hauled down.

All the different methods of sailing may be divided into four, viz. *close-hauled*, *large*, *quartering*, and *afore the wind*: all which relate to the direction of the wind with

with regard to the ship's course, and the arrangement of the sails.

Order of SAILING, the general disposition of a fleet of ships when proceeding on a voyage or an expedition. It is generally found most convenient for ships of war to be formed in three parallel lines or columns.

SAILING, also implies a particular mode of navigation, regulated by the laws of TRIGONOMETRY; hence we say, PLAIN SAILING, MERCATORS' SAILING, MIDDLE LATITUDE, PARALLEL, and GREAT CIRCLE SAILING.

A heavy SAILER, a vessel which can advance but slowly.

A prime SAILER, is one which is capable of attaining a great velocity.

SAIL-*loft*, a large apartment in dock-yards where the sails are cut out and made.

SAIL-*maker*, a subaltern officer on board ships of war, who, (with his mates,) has the care of repairing or altering the sails, according to the captain's directions.

SAILOR, a person trained in the exercise of fixing the machinery of a ship, and managing her either at sea or in a road or harbor.

Fresh water SAILOR, an epithet of derision applied to those who have never been at sea.

SALLY-PORT, a large port on each quarter of a fire-ship, out of which the officers and crew make their escape into the boats as soon as the train is fired.

SALVAGE, a third part of the value of any thing recovered from the enemy, after having remained in his possession twenty-four hours, or of any thing dragged up from the bottom of the sea.

SALUTE, a testimony of respect or of homage rendered by the ships of one nation to those of another, or by ships of the same nation to a superior or an equal. This ceremony is variously performed, according to the circumstances, rank, or situation of the parties: it consists in firing a certain number of cannon or vollies

vollies of small arms, in striking the colours or top-sails, or in three general shouts of the whole ship's crew mounted upon the yards and rigging for that purpose.

SAMPANE, a kind of vessel used by the Chinese.

SAMSON's-*post*, a sort of pillar erected in a ship's hold, between the lower deck and the kelson, under the edge of a hatchway, and furnished with several notches, which serve as steps to ascend or descend.

SAMSON's-*post*, is also the name of a strong piece of timber used on board ships of war, which being placed in a sloping position, with the upper end resting against a beam, serves, by means of a single block lashed near its middle, to form a return for a tackle-fall, and thereby affords space for a greater number of hands to clap on.

SAUCER *of a capstern*, is a socket of iron let into a wooden stock or standard, called the step, resting upon and bolted to the beams. Its use is to receive the spindle or foot on which the capstern rests and turns round.

SCALING, the act of cleaning the inside of a ship's cannon by the explosion of a small quantity of powder.

SCANT, is a term applied to the wind when it becomes unfavourable to a ship's course, after having been fair. It is distinguished from a *foul* wind, as in the former a ship is still enabled to sail on her course, although her progress is considerably retarded, but in the latter she is obliged to deviate from it.

SCANTLING, the dimensions of any piece of timber with regard to its breadth and thickness.

SCARFING, a particular method of uniting two pieces of timber together by the extremities, which is performed either by letting the end of one piece into the end of the other, or by laying the two ends together, and fastening a third piece to them both.

SCHOONER, a small vessel with two masts, whose main-sail and fore-sail are both suspended by gaffs, like a sloop's main-sail.

SCIATIC *stay*, a strong rope fixed from the main to the fore-mast heads in merchant ships: when loading or unloading, it serves to sustain a tackle, which travelling upon it, may be shifted over the main or fore hatchways, as occasion requires.

SCORE *of a block*, or *of a dead eye*, the hole through which the rope passes.

SCOOP, a little hollowed piece of wood employed to throw the water out of a boat, which operation is usually called *baling* the boat.

SCRAPER, is an iron machine having two or three sharp edges, *a*, fig. 44, 45. pl. 2. used to scrape off the dirty surface of the planks on a ship's side, or decks, or to clean the top-masts, &c.

SCREEN, is the name given to the pieces of canvas, or hammoc hung round a birth for warmth and privacy. See BIRTH.

To SCRUB *the hammocks*, to clean them by laying them flat on the deck and rubbing them with a brush in water.

SCUD, a name given by seamen to the low and thin clouds which are most swiftly wafted along by the wind in dull weather.

SCUDDING, the movement by which a ship is carried precipitately before a tempest, and is either performed with a sail extended on her fore-mast, or, if the storm is excessive, without any sail, which is then called *scudding under bare poles*; the dangers to which this operation subjects a vessel are a pooping sea, the difficulty of steering, to prevent broaching to, and the want of sufficient sea-room.

SCULKER, an idle person who, by keeping below and out of sight, endeavours to avoid his duty.

SCULL, a kind of short oar, the loom of which is only equal in length to half the breadth of the boat, whereby two may be managed by one man, one on each side.

To SCULL, is to cause a boat to advance by a particular method of managing a single oar over the boat's stern.

SCUL-

SCULLER, a term denoting a boat rowed by one man with two short oars or rather *sculls*; it is used in contra-distinction to OARS, which signifies a boat rowed by two men with oars.

SCUPPERS, certain channels cut through the waterways and sides of a ship at proper distances, and lined with sheet lead in order to carry the water off the deck into the sea.

SCUPPER-*hoase*, a leathern pipe or tube nailed round the outside of the scuppers of the lower decks, and which by hanging down prevents the water from entering when the ship inclines under a pressure of sail.

SCUPPER-*nails*, have very broad heads so as to retain a great quantity of the hoase under them.

SCUPPER-*plugs*, are used to stop the scuppers occasionally.

SCUTTLE, a small hatchway, or hole, cut for some particular purpose through a ship's decks or sides, or through the coverings of her hatchways, and furnished with a lid which firmly encloses it when necessary.

SCUTTLING, the act of cutting large holes through the bottom, sides, or decks of a ship, for various occasions.

To SCUTTLE *a ship*, to sink her by making holes through her bottom.

SCUTTLE-*butt* or *cask*, is a cask having a square piece sawn out of its bilge and lashed upon the deck. It is used to contain the fresh water for daily use, whence it is dipped out with a leaden cann.

SEA, is a great collection of water; by sailors, however, this word is variously applied to a single wave, to the agitation produced by a multitude of waves in a tempest, or to their particular progress or direction. Thus they say, "We shipped a heavy sea, there is a great sea in the offing, the sea sets to the southward." Hence also a ship is said to head the sea when her course is opposed to the setting or direction of the surges.

A long SEA, implies an uniform and steady motion of long and extensive waves.

A short SEA, is when they run irregularly, broken, and interrupted, so as frequently to break over a vessel's bow, side, or quarter.

SEA-*boat*, a vessel that bears the sea firmly, without labouring heavily, or straining her masts, or rigging.

SEA-*breeze*, the current of air which blows during the day from the sea upon the shore in warm climates.

SEA-*coast*, the shore of any country, or that part which is washed by the sea.

SEA-*man*, or SEA-*faring man*, a person trained to the occupation of a mariner or sailor.

The principal articles required in a common sailor, are, that he should be able to steer, to sound and to manage the sails, by setting, reefing, or furling them, he is then called an able seaman.

SEA-LEGS, implies the capacity of walking on a ship's decks when she pitches or rolls about at sea.

SEA-MARK, a point or conspicuous object distinguished at sea; they are of various kinds as promontories, steeples, ruins, trees, &c. and are very beneficial by informing vessels of their situation on the coast.

SEA-PORT, a haven near the sea as distinguished from one which is situated up a river.

SEA-ROOM, implies a sufficient distance from land, rocks, or shoals, wherein a ship may drive or scud without danger of shipwreck.

SEA-WEED, a sort of herb or tangles floating on the surface of the sea, or washed upon the sea-coast.

SEAMS, the intervals between the edges of the planks in the decks and sides of a ship, or the places where the planks join together; these are always filled with a quantity of oakum and covered with pitch to prevent the entrance of the water. See CAULKING.

SEAM, also implies that part where two edges of canvas are laid over each other and sewed down.

SEINE, the name of a large fishing-net.

SEIZING,

SEIZING, the operation of fastening any two ropes or different parts of one rope together with a small line or cord.

SEIZING implies also the cord which fastens them.

SELVAGEE, a sort of hank or skein of rope-yarn, used to fasten round any rope as a shroud or stay by which to hook a tackle, in order to set it up.

SENDING, the act of pitching precipitately into the hollow or interval between two waves.

SENNIT, a kind of flat braided cordage used for various purposes, and formed by plaiting five or seven rope-yarns together.

SERVING, is the winding any thing round a rope to prevent it from being rubbed: the materials used for this purpose, which are called *service*, are generally spun-yarn, small lines, sennit, or ropes varying in thickness, according to the dimensions of the rope to be served; sometimes leather, old canvas, &c. are used.

To SET, is to observe the bearings or situation of any distant object by the compass, in order to determine on what point it bears. See BEARING.

To SET, is also used with regard to the direction of the wind, current, or swell of the sea.

To SET, applied to the sails, implies the loosing and extending them, so as to force the ship through the water, and is used in contradistinction to taking them in.

To SET *up*, is to extend the shrouds, stays, and backstays more firmly than before, to secure the masts; which is performed by the application of mechanical powers, as tackles, &c.

SETTEE, a vessel of two masts equipped with triangular sails, commonly called lateen sails; these vessels are peculiar to the Mediterranean.

To SETTLE, to lower, also to sink, as, the deck has *settled*, i. e. has sunk below its first plan by the wood drying.

The ship has *settled* abaft since yesterday.

We *settled* the land. See LAYING.

"SETTLE the main-top-sail haliards," ease off a small portion of them, so as to lower the yard a little.

SEWED, the situation of a ship which rests upon the ground; and while the depth of water around her is not sufficient to float her she is said to be sewed by as much as is the difference between the surface of the water, and the ship's floating-mark, or water line.

SEXTANT, an instrument for taking altitudes and other angular distances; it is constructed on a principle similar to HADLEY'S QUADRANT, but the arch, containing a sixth-part of a circle, angles may be taken to 120°. Sextants, are generally fitted with apparatus for ascertaining the angular distances, &c. in lunar observations.

SHAKES, a name given by shipwrights to the cracks or rents in any piece of timber, occasioned by the sun or weather.

SHACKLES, semicircular pieces of iron, sliding upon a round bar, in which the legs of prisoners are occasionally confined to the deck.

SHALLOP, a sort of large boat with two masts, and usually rigged like a schooner.

SHANK, the beam or shaft of an anchor. See ANCHOR.

SHANK-*painter*, a short rope and chain which sustains the shank and flukes of an anchor against the ship's side, as the *stopper* fastens the ring and stock to the cat-head.

To SHAPE *a course*, to direct or appoint the track of a ship in order to prosecute a voyage.

SHARP *bottom*, is synonimous with a sharp floor, and is used in contradistinction to a flat floor.

To brace up SHARP, is to turn the yards to the most oblique direction possible, so as that the ship may lay well up to the wind.

SHEATHING, a sort of casing or covering nailed all over the outside of a ship's bottom to protect the planks from the pernicious effects of the worms; it consists of thin deal boards, or what is far preferable, sheets

sheets of copper: this latter is always used in the Royal Navy, in the East-India service, and is coming into general use.

SHEAVE, the wheel on which the rope works in a block; it is generally formed of lignum vitæ, sometimes of brass, and frequently of both; the interior part, or that which sustains the friction against the pin, being of brass, let into the exterior, which is of lignum vitæ, and is then termed a sheave with a brass coak or bush.

SHEAVE-*hole*, is a channel cut in a mast, yard, or timber, in which to fix a sheave, and answering instead of a block.

SHEEPSHANK, a kind of knot made on a rope to shorten it, and is particularly used on runners or ties, to prevent the tackle from coming block and block, plate 8, fig. 115.

SHEER, the longitudinal curve of a ship's decks or sides.

SHEER, is also the position in which a ship is sometimes kept when at single anchor, in order to keep her clear of it; hence—

To break SHEER, is to deviate from that position, and thereby risque the fouling the anchor.

SHEERING, the act of deviating or straying from the line of the course so as to form a crooked and irregular path through the water, and may be occasioned by the ship's being difficult to steer, but more frequently arises from the negligence or incapacity of the helmsman.

To SHEER *up alongside*, to approach a ship in a parallel direction.

To SHEER *off*, to remove to a greater distance.

SHEER-*hulk*. See HULK.

SHEERS, an engine used to hoist in or get out the lower masts of a ship, and are either placed on the side of a quay or wharf, or are fixed on board of an old ship cut down, or, lastly, they are composed of two masts, or large spars lashed together, fig. 62, pl. 3, and erected in the vessel wherein the mast is to be plant-

ed

ed or displaced, the lower ends of the props resting on the opposite sides of the deck, and the upper parts being fastened together across, from which a tackle depends; this sort of sheers is secured by stays extending to the stem and stern of the vessel.

SHEET, a rope fastened to one or both the lower corners of a sail to extend and retain it in a particular situation. When a ship sails with a side wind, the lower corners of the main and fore-sails are fastened by a tack and a sheet, the former being to windward and the latter to leeward; the tack is, however, entirely disused with a stern wind, whereas the sail is never spread without the assistance of one or both of the sheets; the stay-sails and studding-sails have only one tack and one sheet each; the stay-sail tacks are fastened forward and the sheets drawn aft, but the studding-sail-tacks draw the outer corner of the sail to the extremity of the boom, while the sheet is employed to extend the inner corner.

SHEET-*anchor*. See ANCHOR.

To SHEET *home*, is to haul home a sheet, or to extend the sail till the clue is close to the sheet-block.

SHELL, in artillery. See MORTAR.

SHELL *of a block*, the outer frame, or case, wherein the sheave or wheel is contained and traverses about its axis.

SHELVES, a general name given to any dangerous shallows, sand-banks, or rocks, lying immediately under the surface of the water.

SHELVING, inclining gradually, as a shelving bottom, a shelving land, &c.

To SHIFT, to change, or to alter the position of, as, to *shift* a birth, to *shift* a top-mast, to *shift* the helm, &c.

The wind SHIFTS, implies that it varies.

SHIFTED, the state of a ship's ballast or cargo when it is shaken from one side to the other, either by the violence of her rolling, or by her too great inclination to one side under a great pressure of sail; this accident, however, rarely happens, unless the cargo is stowed in bulk, as corn, salt, &c.

SHIFTER,

SHIFTER, a person appointed to assist the ship's cook in washing, steeping, and shifting the salt provisions.

SHIFTING *a tackle*, the act of removing the blocks of a tackle to a greater distance from each other, in order to give a greater extent to their purchase; this operation is otherwise called FLEETING, which see.

SHIFTING *the helm*, is the alteration of its position by pushing it towards the opposite side of the ship.

SHIFTING *the messenger*, changing its position on the capstern from the right to the left, or *vice versa*.

SHIP, a general name given to all vessels navigated on the ocean; in the sea language, however, it is more particularly applied to a vessel furnished with three masts, each of which is composed of a lower mast, a top-mast, and top-gallant-mast, with the yards and other machinery thereto belonging.

A SHIP *cut down*, implies one which has had a deck cut off from her, whereby a three-decker is converted into a two-decker, and a two-decker becomes a frigate.

A SHIP *raised upon*, is one whose dead works have been heightened by additional timbers.

Hospital SHIP, a vessel fitted up to attend a fleet of men of war, and receive their sick or wounded, for which purpose her decks are high, her ports large, and her cables run on the upper deck.

Merchant SHIP, a vessel employed in commerce to carry commodities of various sorts from one port to another, the largest of which are those used in trading to the East-Indies.

Prison SHIP, a vessel fitted up to receive prisoners in a port.

Receiving SHIP, a ship stationed at any place to receive volunteers and impressed men, and train them to their duty in readiness for any ship of war which may want hands.

Slave SHIP, a vessel employed in carrying negro slaves from the coast of Africa to the West-Indies, &c. whence she returns to Europe with a cargo of rum, sugar, coffee, cotton, &c.

Private SHIP *of war*. See PRIVATEER.

Slop SHIP, a vessel appointed as a depot of clothes for the seamen.

Store SHIP, a vessel employed to carry artillery and stores for the use of a fleet, fortress, or garrison.

Troop SHIP, is one appointed to carry troops, and is frequently termed a *transport*.

To SHIP, to embark any person, or put any thing aboard ship; also to receive into a ship, as, we shipped a heavy sea.

To SHIP, also implies to fix any thing in its place; as "Ship the oars;" that is, place them in their rowlocks.

SHIP-*master*, is the captain, commander, or patron of a vessel.

SHIPPING, a multitude of vessels.

SHIP-*shape*, in a seaman-like manner; as "That mast is not rigged ship-shape;" "Put her about ship-shape," &c.

SHIP-*wreck*, the destruction of a vessel by her beating against the rocks, shore, &c.

SHIPWRIGHT, one who builds ships.

SHIVERING, the state of a sail when it shakes or flutters in the wind, as being neither full nor aback, but in a middle degree between both.

SHOAL, a term synonimous with *shallow*.

SHOAR, a prop or stanchion, fixed under a ship's sides or bottom, to support her when laid aground or on the stocks, &c.

SHOE *of the anchor*, a small block of wood, convex on the back, and having a hole sufficiently large to contain the point of the anchor-fluke on the fore side; it is used to prevent the anchor from tearing the planks on the ship's bow, when ascending or descending.

To SHOE *an anchor*, is to cover the flukes with a broad triangular piece of thick plank, whose area is greater than that of the flukes. Its use is to give the anchor a stronger and surer hold in very soft or oozy ground.

To SHOOT *ahead*, is to sail beyond another vessel.

SHORE,

SHORE, the general name for the sea-coast of any country.

Bold SHORE, a coast which is steep and abrupt, so as to admit the near approach of shipping without exposing them to the danger of being stranded; and is used in contradistinction to a *shelving* SHORE.

SHORTEN, expressed of a ship's sails, is used in opposition to *make*.

SHOT, a missive weapon, discharged by the force of ignited powder from a fire-arm in battle; of these there are various kinds; as,

Round SHOT, a ball or globe of iron, whose weight is in proportion to the bore of the cannon.

Double-headed or *bar* SHOT, are formed of a bar with a round head at each end, which fits the muzzle of the cannon, and is intended to destroy the masts. Fig. 81, plate 7.

Chain SHOT, consist of two balls chained together, being principally designed to annoy the enemy, by cutting her sails, rigging, &c. Fig. 82, pl. 7.

Grape SHOT, is a combination of balls strongly corded in canvas upon an iron bottom, so as to form a sort of cylinder, whose diameter is equal to that of the ball which is adapted to the cannon. Fig. 83, pl. 7.

Case SHOT, or *Canister* SHOT, are composed of a great number of small bullets, put into a cylindrical tin box. They are principally used when very near to clear the decks of the enemy. Fig. 84, pl. 7. Besides these there are others of a more pernicious kind, used by privateers, pirates, &c. such are *langrage shot*, *star shot*, *fire-arrows*, &c.

Small SHOT, implies musket-balls.

To SHOT *the guns*, is to put shot into them.

SHOT-*locker*. See LOCKER.

SHROUDS, a range of large ropes extended from the mast-heads to the right and left sides of a ship, to support the masts, and enable them to carry sail, &c. The shrouds are always divided into pairs or couples, that is to say, one piece of rope is doubled, and the two

two parts fastened together at a small distance from the middle, so as to leave a sort of noose or collar to fix upon the mast-head; the ends which reach to the deck have each a dead-eye turned in or fastened to them, by which they are extended to the channel, as *n*, *n*, fig. 66, pl. 6. See CHANNEL, DEAD-EYE, and LANIARD.

The SHROUDS, as well as the sails, &c. are denominated from the masts to which they belong; thus there are the main, fore, and mizen shrouds; the main-top-mast, fore-top-mast, and mizen-top-mast shrouds; and the main-top-gallant, fore-top-gallant, and mizen-top-gallant shrouds.

The top-mast SHROUDS, (*o*, *o*,) are extended from the top-mast head to the edges of the tops by the foothook-plates at *q*. See PLATE. The upper ends of the futtock-shrouds are furnished with iron hooks, which enter holes in the lower ends of the foot-hook-plates, so that when the top-mast shrouds are set up or extended, the futtock-shrouds (*q*, *l*,) acquire an equal tension.

The top-gallant SHROUDS, (*m*) are extended to the cross-trees, where passing through holes in their ends, they continue over the futtock-staves of the top-mast rigging, and descending almost to the top, are set up by laniards passing through *thimbles* instead of *dead-eyes*.

Futtock or *Foothook* SHROUDS, (*q*, *l*) are pieces of rope, communicating with the futtock-plates above and the catharpings below, and forming ladders, whereby the sailors climb up to the top-brim.

Bowsprit SHROUDS, are shrouds put over the head of the bowsprit, and extended on each side to the ship's bows to support the former.

Bumkin SHROUDS, are strong ropes, fixed as stays or supports to the bumkin-ends, to prevent their rising by the efforts of the fore-tacks upon them.

Bentinck SHROUDS, are strong ropes seized on the futtock-staves of the lower rigging, and extending to

the opposite channels, where they are set up by means of dead-eyes and laniards, in the same manner as the other shrouds; their use is to relieve or support the masts when the ship rolls.

To SHUT *in*, is said of land-marks or points of land, when one is brought to cover the other or intercept the view of it.

SICK-*birth*, a place appointed in a ship of war (generally forward) for the reception of the sick.

SICK-*list*, contains the names of all those who are under the care of the doctor, and is daily sent up by the surgeon to the captain.

SIDE, is a name given to all that part of a ship which is presented to the view between the stem and stern. It is terminated above by the gunnel, and below by the lower edge of the main-wale, which separates it from the bottom; it is inclosed by the stern abaft, and by the bow forward.

Wall-SIDED. See WALL-SIDED.

SIGNALS, certain notices used to communicate intelligence to distant objects at sea. They are made by firing artillery, displaying flags and pendants, lanterns or fire-works, as rockets and false fires, and these are combined by multiplication and repetition; by which combination of signals, previously known, the admiral conveys orders to his fleet, every squadron, every division, and every ship of which has its particular signal. Every ship to which a signal is made immediately answers it by hoisting some particular flag, to shew that she has received and understands the order thereby conveyed.

Day SIGNALS, are usually made by flags and pendants, sometimes accompanied with one or more guns.

Night SIGNALS, are either lanterns disposed in certain figures, as lines, squares, and triangles, or are made with false fires or rockets, or by firing of guns.

Fog SIGNALS, consist of operations which emit sound, as firing cannon or muskets, beating drums, ringing bells, &c.

To SILENCE *a battery*, is by a vigorous cannonade to annoy the enemy, so as to cause them to cease firing from it.

SKEET, a sort of long scoop used to wet the sides of a ship in hot weather, in order to keep them cool and prevent them from splitting by the heat of the sun. It is also employed in small vessels to wet the sails, to render them more efficacious in light breezes; this operation is sometimes performed in large ships by means of the fire-engine.

SKIDS, or SKEEDS, long compassing pieces of timber, formed to answer the vertical curve of a ship's side. They are notched below, so as to fit closely upon the wales, and extend from the main wale to the gunnel, being strongly nailed to the side. Their use is to preserve the planks of the side when any weighty body is hoisted or lowered against it.

SKIFF, a small light boat, resembling a yawl.

To SKIN *up a sail in the bunt*, is to make that part of the canvas which covers the sail, when furled, smooth and neat, by turning the sail well up on the yard.

SKIPPER, a familiar name borrowed from the Dutch, and given to the masters of small merchant-vessels.

SKY-SCRAPERS, small triangular sails, sometimes set above the royals; they are, however, very rarely used.

SLAB-*lines*, small cords passing up behind a ship's main-sail or fore-sail, and being reeved through blocks attached to the lower part of the yard, are thence transmitted each in two branches to the foot of the sail, where they are fastened. They are used to truss up the sail, but more particularly for the convenience of the steersman, that he may look forward beneath it.

SLACK *of a rope*, that part which hangs loose, as having no strain or stress upon it.

SLACK *rigging*, implies that the shrouds, stays, &c. are not so firmly extended as they ought to be.

SLACK *in stays*, signifies slow in going about.

SLACK-

SLACK *water*, the intervals between the flux and reflux of the tide, or that time during which the water apparently remains in a state of rest.

To SLACK, is to decrease in tension or velocity; as "Slacken the laniard of our main-stay," "The tide slackens."

SLATCH, the period of a transitory breeze, or the length of its duration.

SLEEPERS, a name given by shipwrights to the thick stuff placed longitudinally in a ship's hold, opposite to the several scarfs of the timbers. They are particularly applied in Greenland ships, to strengthen the bows and stern-frame, to enable them to resist the shocks of the ice.

SLINGS, a rope fitted to encircle a cask, jar, bale or case, and suspend it while hoisting and lowering. Of these there are various sorts, according to the weight or figure of the object to which they are applied. For *Butt*-SLINGS, see fig. 70, pl. 6.

SLINGS *of a yard*, ropes fixed round its middle, and serving to suspend it for the greater ease of working, or for security in an engagement; in the latter case they usually add iron chains to the slings of the lower yards. This term also implies the middle, or that part of the yard on which the slings are placed.

SLINGS *of a buoy*. See BUOY.

Boat-SLINGS, strong ropes, furnished with hooks and iron thimbles, whereby to hook the tackles, in order to hoist the boats in or out of the ship, the hooks of the slings being applied to ring-bolts fixed in the keel and extremities of the boat.

SLIP, a place lying with a gradual descent on the banks of a river, or harbour, convenient for ship-building.

To SLIP *a cable*, is to veer out, and let go the end.

SLIP-*knot*, is one which will not bear any strain, but will either become untied, or will traverse along the other part of the rope.

SLIPPERING-*hitch*, is one which will not bear a stress.

SLOOP, a small vessel, furnished with one mast, the main-sail of which is attached to a gaff above, to the mast on its foremost edge, and to a boom below. It differs from a cutter, by having a fixed *steeving* bowsprit, and a jib-stay; nor are the sails generally so large in proportion to the size of the vessel.

SLOOPS *of war*, are vessels in the Navy commanded by officers in a middle rank, between a lieutenant and a post-captain, and stiled masters and commanders. These vessels carry from 10 to 18 guns, and are variously rigged as ships, brigs, schooners, and sometimes as cutters.

SLOPS, a name given to the cloathing for seamen.

To SLUE, is to turn any cylindrical or conical piece of timber, &c. about its axis, without removing it. This term is generally expressed of the movement by which a mast, boom, or spar is turned about.

SMACK, a small vessel, commonly rigged as a cutter, and used in the coasting and fishing-trade.

SMOKE-*sail*, a small sail, hoisted against the fore-mast when a ship rides head to wind, to give the smoke of the galley opportunity of rising, and to prevent its being blown aft on to the quarter-deck.

SMUGGLER, a vessel employed in a contraband trade.

SNAKING, is the winding small ropes spirally round a large one, the former lying in the intervals between the strands of the latter, and is frequently termed WORMING, which see.

SNATCH-*block*, a block having an opening in one of its sides, wherein to fix the bight of a rope occasionally. See BLOCK. This is by some termed a *rouse-about block*.

SNOTTER. See SPRIT.

SNOW, a vessel equipped with two masts, resembling the main and fore-masts of a ship, and a third small mast just abaft the main-mast, carrying a sail nearly similar to a ship's mizen; the foot of this mast is fixed in a block of wood, or kind of step, upon the deck, and the head is attached to the afterpart of the main-

top.

top. The sail is called a *try-sail*, and hence the mast is termed a *try-sail-mast*. Some snows are furnished with a strong rope, called a *horse*, instead of the try-sail-mast, the fore part of the sail being attached by rings to it.

SOLE *of a gun-port*, is the lower part of it, and is more properly called the *Port Sill*.

SOLE *of the rudder*, a piece of timber attached to the lower part of it, to render it nearly level with the false keel.

SOUNDING, the operation of trying the depth of the water, and the quality of the ground, by means of a plummet sunk from a ship to the bottom. See LEAD and LINE.

In SOUNDINGS, implies the being so near the land as that a deep-sea lead will attain the bottom, which is seldom practicable in the ocean.

SOUNDINGS, is also a name given to the specimen of the ground: a piece of tallow being stuck upon the base of the deep-sea lead, brings up distinguishing marks of the bottom, as sand, shells, ooze, &c. which adhere to it.

SOUNDING-*rod*, a long piece of iron, marked with feet and inches, which being let down by a line in a groove by one of the pumps, indicates what water there is in the well, and consequently whether or not the ship leaks.

SOUTHING *of the moon*, the time at which the moon passes the meridian of any particular place.

SPAN, a small line or cord, the middle of which is usually attached to a stay, whence the two ends branch outwards to the right and left, having either a block or thimble attached to their extremities. It is used to confine some ropes which pass through the corresponding blocks or thimbles.

To SPAN *in the rigging*, is to draw the upper parts of the shrouds together by tackles, in order to seize on the catharping-legs.

SPANKER, a name sometimes given to a ship's DRIVER, which see.

SPARE, an epithet applied to any part of a ship's equipage that lies in reserve, to supply the place of such as may be lost or rendered incapable of service; hence we say, *spare* tiller, *spare* top-masts, *spare* sails, &c.

SPARS, large round pieces of timber, fit for making top-masts, &c.

SPEAKING-*trumpet*, a tube formed to collect the impulses of sound in speaking, and convey them forward to a distance.

Pump-SPEAR. See PUMP.

SPELL, the period wherein one or more sailors are employed in a particular exercise, from which they are relieved as soon as the limited time expires; such are the spells to the hand-lead in sounding, to the pump, &c.

SPELL, also implies the relief or return of duty to those services; thus we say, "Spell the lead," "Spell the pump," &c.

To SPILL, to discharge the wind out of the cavity or belly of a sail, in order to furl or reef it. This is either performed by collecting the sail together, or by bracing its edge to the wind, so as to shiver it.

SPILLING-*lines*. See LINES.

SPINDLE, a sort of iron pin, tapering at the upper end to a point. It is fixed into the upper end of the top-gallant-mast, so as to carry a vane, which turning thereon horizontally, shews the direction of the wind. See ACORN.

SPINDLE, is also the name of the lower end or foot of a capstern, which is shod with iron, and becomes the pivot or axis on which it turns in the *saucer*. See CAPSTERN.

SPIRIT-*room*. See ROOM.

SPIRKETTING, that range of planks which lies between the water-way and the lower edge of the gun-ports within side of a ship of war.

To SPLICE, to join the two ends of a rope together, or to unite the end of a rope to any part thereof, by interweaving the strands in a regular manner.

There are several methods of making a splice, according to the services for which it is intended; all of which are distinguished by particular epithets.

The short SPLICE, is used upon the cables, slings, block-strops, and in general all ropes which are not intended to run through blocks, or where the splice is not in danger of being loosened.

The long SPLICE, occupies a greater extent of rope, but by the three joinings being fixed at a distance from each other, the increase of bulk is divided, as plate 8, fig. 110, 111, 112; hence it is much neater and smoother than the short splice, and better adapted to run through the channel of a block, &c. for which use it is generally intended.

The eye SPLICE, forms a sort of eye or circle at the end of a rope, (plate 8, fig. 113) and is used for splicing in thimbles, bulls-eyes, &c. and sometimes on the end of block-strops.

The cunt SPLICE, is constructed in a similar manner to the *eye splice*, but for a different purpose, being chiefly used in lead-lines, log-lines, and fishing-lines, where the short splice would be liable to separation, as being frequently loosened by the water. It is made by splicing the ends of two lines at a short distance from each other. Plate 8, fig. 114.

SPLINTERS, the pieces of a ship's sides, masts, decks, &c. which, being knocked off by a shot, acquire great velocity, and frequently do more damage amongst the men than the shot itself.

SPLINTER-*netting*, sinnet made into nets, and nailed upon the inner part of a ship's sides, to lessen the effect of the splinters.

SPLIT, the state of a sail which is rent asunder by the violence of the tempest; or by sustaining a greater effort on one part of its surface than the rest.

SPLIT, when applied to a ship, is the state of being bilged on a rock.

SPOON-*drift*, a sort of showery sprinkling of the sea-water, swept from the surface of the waves in a tempest.

SPRAY,

SPRAY, the sprinkling of the sea, which is driven from the top of a wave in stormy weather. It differs from the spoondrift, as being only blown occasionally from the broken surface of a high wave; whereas the latter continues to fly horizontally along the sea, without intermission, during the excess of a tempest or hurricane.

SPRING, a crack running transversely or obliquely through any part of a mast or yard, so as to render it unsafe to carry the usual quantity of sail thereon.

SPRING, is also a rope passed out of a ship's stern, and attached to a cable proceeding from her bow, when she lies at anchor. It is usually performed to bring the ship's broadside or battery of cannon to bear upon some distant object, as another ship, a fortress on the coast, &c. When a ship rides by anchors which are only attached to one end, she will move like a weather-cock, according to the direction of the wind or tide. Now if a rope be extended from the other end to the same anchor, it is evident that by slackening one of these ropes, and keeping fast the other, her side will lie more or less obliquely to the wind or tide, as occasion may require.

SPRING, is likewise a rope, extending diagonally from the stern of one ship to the head of another which lies abreast of her at a short distance, and is performed to make one of the ships sheer off to a greater distance from the other. Springs of this kind are occasionally applied to a wharf or pier for the same purposes.

To SPRING *a leak.* See LEAK.

To SPRING *a butt,* to loosen the end of a plank in the ship's bottom. See BUTT.

To SPRING *the luff.* See LUFF.

To SPRING *a mast, yard, &c.* is to crack it transversely or obliquely. See SPRING.

SPRING-*tide,* the periodical excess of the elevation and depression of the tide, which happens soon after the new and full-moon.

SPRIT,

SPRIT, a small boom or pole, which crosses the sail of a boat diagonally from the mast to the upper aftmost corner, which it is used to extend and elevate: the lower end of the sprit rests in a sort of wreath, called the *snotter*, which encircles the mast at that place. This kind of sails are accordingly called SPRIT-SAILS.

SPRIT-SAIL, is also a sail attached to a yard which hangs under the bowsprit. It is furnished with a large hole towards each of its lower corners, to evacuate the water with which the cavity or belly of it is frequently filled by the surge of the sea, when the ship pitches, (*l*, fig. 64, pl. 5).

SPRIT-*sail top-sail*, a sail extended above the former by a yard, which hangs under the jib-boom: the clues of this sail are hauled home to the sprit-sail yard-arms, after which the sail is drawn out towards the extremity of the boom, as any other top-sail-yard is hoisted upon its mast (*m*, fig. 64, pl. 5).

SPRIT-*sail top-gallant-sail*, is set upon the flying jib-boom, in the same manner that the sprit-sail top-sail is set upon the inner jib-boom; this sail is, however, very rarely used.

SPUNGE, an instrument used to clean the cannon after firing, and to extinguish any sparks that may remain behind. They are sometimes made of bristles, resembling a round brush, as fig. 85, pl. 7. but more generally of sheep's-skin, with the wool outwards, nailed upon a block of wood nearly as large as the caliber of the piece (*b*, fig. 80, pl. 7). The block is either fixed upon a long wooden staff, or upon a thick piece of rope well stiffened by serving it with spun-yarn. This latter is much more convenient on board of ships, on account of its flexibility; and is generally furnished with a block at the other end, to use as a rammer, as fig. 80, pl. 7.

To SPUNGE *a gun*, is to clean it out with the spunge; and should be constantly repeated after every explosion.

SPUN-

SPUN-*yarn*, a small line or cord, formed of two, three, or more rope-yarns twisted together by a winch; the yarns are usually drawn out of the strands of old cables, and knotted together. *Spun-yarn* is used for various purposes, as seizing and serving-ropes, weaving mats, &c.

SPURLING-*line*, the line which forms the communication between the WHEEL and the TELL-TALE. See those articles.

SPURS *of the beams*, are curved pieces of timber, serving as half-beams, to support the decks, where a whole beam cannot be placed on account of the hatchways.

SPURS *of the bits*, the same with STANDARDS.

SQUADRON, either implies a detachment of ships employed on any particular expedition, or one-third part of a naval armament.

SQUALL, a sudden and violent gust of wind.

A black SQUALL, one attended with a dark cloud, which occasions a diminution of the usual quantity of light.

A white SQUALL, produces no such diminution.

A thick SQUALL, is accompanied with rain, sleet, &c.

SQUARE, a term peculiarly appropriated to the yards and their sails, either implying that they are at right-angles with the mast or keel, or that they are of greater extent than usual. Thus, when the yards hang at right-angles with the mast, they are said to be square by the lifts; when they hang perpendicular to the ship's length, they are called square by the braces; but when they lie in a direction perpendicular to the plane of the keel, they are square by the lifts and braces; or, in other words, they hang directly across the ship, and parallel to the horizon.

The yards are said to be very square when they are of extraordinary length, and the same epithet is applied to their sails with respect to their breadth.

SQUARE *rigged*, is a term used in contradistinction to all vessels whose sails are extended by stays, lateen or lug-sail-yards, or by gaffs and booms, the usual situation of which is nearly in a plane with the keel.

SQUARE *sail*, is any sail extended to a yard suspended by the middle and hanging parallel to the horizon, as distinguished from other sails which are extended obliquely.

SQUARE *sail*, is also the name of a sloop's or cutter's sail which hauls out to the lower-yard called the square-sail-yard. It is principally used in scudding.

SQUARE-*sterned*, implies a stern like a ship of war.

STAFF, a light pole erected in different parts of a ship, whereon to hoist and display the colours.

The ensign STAFF, is reared immediately over the stern to display the ensign.

The jack STAFF, is fixed on the end of the bowsprit to extend the jack.

A flag STAFF, is erected at each of the mast-heads, or formed by their upper ends to support the flag or pendant of the respective squadron or division to which the ship belongs.

STAGE, a machine composed of planks, and let over the side by ropes, whereon the people may stand when repairing, caulking, or paying the ship's sides, wales, &c.

A floating STAGE, is one which needs not the support of ropes, being sufficiently large and firm to beat upon the water.

STANCHIONS, a sort of small pillars of wood or iron, used for various purposes in a ship, as to support the decks, the quarter-rails, the nettings, the awnings, &c. Of the first, some of wood are stationary or standing, and others of iron are made to unship and hook up to the beams.

STANDARD, in ship-building, is an inverted knee, placed *upon* the deck instead of *beneath* it, and having its vertical branch pointed upwards from that which lies horizontally.

Royal STANDARD, a flag in which the imperial ensigns of England, Scotland, and Ireland, are quartered, together with the armorial bearings of Hanover. It is never hoisted unless when the King is on board,

at

at which time it is displayed at the main-top-gallant-mast head.

STANDING, the movement by which a ship advances towards a certain object or departs from it; as, "The enemy *stands* in shore;" "The fleet is *standing* off;" "We saw three sail *standing* to the southward;" "We *stood* under easy sail;" "She *stood* upon the starboard tack;" "The cutter *stood* off and on," &c.

"That ship has not a mast *standing*," is a phrase implying she has lost all her masts.

To STAND *by*, to attend to; as, "Stand by the top-sail-haliards."

STAND *from under*, a notice given to those below to keep out of the way of any thing being lowered down or let fall from above.

To STAND *on*, to continue the course.

The STANDING *part of a rope* or *tackle*, that part which is made fast to the mast, deck, or block; in contradistinction to that which is pulled upon, which is called the *fall*, or *running* part.

STANDING *rigging*. See RIGGING.

STARBOARD, the right side of a ship when the eye of a spectator is directed forward.

STARBOARD, is also an order to the helmsman to put the helm a little to the starboard side; and is used only when the ship is going large or free.

To START, applied to liquids, is to empty; but to any weight, as the anchor, &c. implies to move.

STATION-*bill*, a list, containing the appointed posts of the ship's company when navigating the ship.

To STAVE, is to break a hole in any vessel.

STAY, a large strong rope, employed to support the mast on the fore part, by extending from its upper end towards the stem of the ship, as the shrouds are extended on each side. The *fore-stay* reaches from the fore-mast head towards the bowsprit end; the *main-stay* extends to the ship's stem; and the *mizen-stay* is stretched to a collar on the main-mast, immediately above the quarter-deck; the *fore-top-mast-stay* comes to the

the end of the bowsprit, a little beyond the fore-stay; the *main top-mast-stay* is attached to the hounds of the fore-mast; and the *mizen-top-mast-stay* comes to the hounds of the main-mast; the *fore-top-gallant-stay* comes to the outer end of the jib-boom; the *main-top-gallant-stay* is extended to the head of the fore-top-mast; and the *mizen-top-gallant-stay* is attached to the head of the main-mast; the *royal stays*, when used, extend to the jib-boom end, or to the heads of the top or top-gallant masts next before them. The whole of these stays are nearly in the directions of the upper edges of the several stay-sails, which derive their names from them. See SAIL, also fig. 65, pl. 5.

Spring-STAY, is a kind of assistant stay, extending in a direction nearly parallel to the principal stay; it is much thinner than the other, and is only used to the lower masts and top-masts.

STAY-*sail*, any sail extended upon a stay. See SAIL.

STAY-*sail-stay*, a rope used solely to extend and support a stay-sail, as the middle stay-sail, 3. fig. 65, pl. 5.

STAYS, implies the action of going about; hence, to *miss stays* is to fail in the attempt to go about.

STAY-*tackle*, a large tackle, attached by means of a pendant to the main-stay. It is used to hoist heavy bodies, such as the boats, or butts of water, beer, &c. in or out of the ship and out of the holds; for which purpose there are generally two, the one over the fore-hatchway, the other perpendicular to the main-hatchway; and they are accordingly distinguished by the epithets *main* or *fore* stay-tackles, though both are upon the main-stay.

STEADY, the command given to the helmsman in a *fair* wind, to steer the ship in the line on which she advances at that instant, without deviating to the right or left; to which the helmsman answers, *Steady*, to shew his attention to the order.

STEEP-TO, is said of a shore when it descends almost perpendicularly into the water.

STEERAGE, an apartment afore the great cabin, from which it is separated by a partition or bulk-head. In merchant-ships it is generally the habitation of the inferior officers and crew; but in ships of war it serves only as a hall or anti-chamber to the great or captain's cabin.

STEERAGE, is also used to express the effort of the helm.

STEERAGE-*way*, implies a sufficient degree of motion communicated to a ship for her to become susceptible of the effects of the helm in governing her course.

STEERING, may be defined the art of directing a ship's way by the movements of the helm. The perfection of steering consists in a vigilant attention to the motion of the ship's head, so as to check every deviation from the line of the course in the first instant of its motion, and in applying as little of the power of the helm as possible. The phrases used in steering a ship vary according to the relation of the wind to her course. Thus if the wind is fair or large, the words are PORT, STARBOARD, and STEADY, which see; as also HARD. But when the ship is close-hauled, the phrases are LUFF, THUS, NO NEAR, which see; as also FULL and BY. In ships of war, the duties of conning and steering are divided amongst the quarter-masters, their mates, and the most expert seamen, who attend the helm in turns. In merchant-ships, every seaman takes his turn in steering, being directed therein by the mate of the watch.

STEERSMAN, the same with HELMSMAN and TIMONEER.

STEEVING, the angle of elevation which a ship's bowsprit makes with the horizon.

STEM, a circular piece of timber, into which the two sides of a ship are united at the fore end; the lower end of it is scarfed to the keel, and the bowsprit rests upon its upper end; the ends of the wales and planks of the sides and bottom are let into a groove or channel cut in the middle of its surface, from top to bottom. See RABITTING.

The

The outside of the stem is usually marked with a scale of feet, answering to a perpendicular from the keel. Its use is to ascertain the draught of water at the fore part.

To STEM *a tide,* to acquire a velocity in sailing against the tide, equal to the force of the current.

From STEM *to* STERN, from one end of the ship to the other.

STEMSON, an arching piece of timber fixed within the apron to reinforce the scarf thereof, in the same manner as the apron supports the scarf of the stem.

STEP, a block of wood fixed on the decks or bottom of a ship, and having a hole in its upper side fitted to receive the heel of a mast or capstern.

To STEP *a boat's mast,* is to erect and secure it in readiness for setting sail.

STERN, the posterior part of a ship, or that part which is presented to the view of a spectator, placed on the continuation of the keel, behind. The stern is terminated by the taffarel above, and by the counters below. It is limited on the sides by the quarter-pieces, and the intermediate space comprehends the galleries and windows of the different cabins.

STERN-*chase.* See CHASE.

STERN-*board.* See BOARD.

STERN-*fast,* a rope used to confine the stern of a ship, lighter, or boat, to any wharf or jetty-head, &c.

STERN-*frame,* the several pieces of timber which form the stern. See TIMBER.

STERNMOST, implies any ship or ships that are in the rear, or farthest astern, as opposed to *headmost.*

STERN-*ports.* See PORTS.

STERN-*post,* a long straight piece of timber, erected on the extremity of the keel, to sustain the rudder and terminate the ship behind. It is usually marked like the stem, with a scale of feet, from the keel, upwards, in order to ascertain the draught of water abaft. The difficulty of procuring a stern-post of sufficient breadth in one piece, has introduced the practice of fixing an

additional piece behind it, which is strongly bolted to the former; the hinges which support the rudder are accordingly fixed to this latter, which is also tenanted into the keel, and is denominated the *back of the post*. The stern-post is strongly attached to the keel by a knee, of which one branch extends along the keel, being scarfed and bolted to the dead-wood, and forelocked under the keel; whilst the other branch inclines upwards, and corresponds with the inside or fore part of the stern-post, to which it is also bolted in the same manner.

STERN-*sheets*, that part of a boat which is contained between the stern and the aftmost seat of the rowers. It is generally furnished with seats to accommodate passengers.

STERN-*way*, the movement by which a ship retreats or goes backward with her stern foremost.

By the STERN, the condition of a vessel which is more deeply laden abaft than forward.

STEWARD, an officer in a ship of war, appointed by the purser to distribute the different species of provisions to the officers and crew, for which purpose he is furnished with several assistants. He is generally denominated the *purser's* steward, or the *ship's* steward, to distinguish him from the captain's or the ward-room stewards, who are appointed to take care of the sea-stock belonging to the captains and lieutenants, &c.

STICK *out the cable*, is the order to slacken and push it out of the hawse-hole, when the anchor is being hauled up to the cat-head, &c.

STIFF, the quality by which a ship is enabled to carry a sufficient quantity of sail without hazard of oversetting.

STINK-*pot*, an earthen jar, charged with powder, grenades, and other materials of an offensive and suffocating smell. It is sometimes used by privateers, to annoy an enemy whom they design to board.

STIRRUPS. See HORSE.

STOCK, generally implies provisions procured by individuals, for the particular accommodation of themselves

selves or messmates; hence we say *fresh* stock, *sea* stock, *live* stock.

STOCK *of an anchor*. See ANCHOR.

To STOCK *to*, in stowing an anchor, is by means of a tackle upon the upper end of the stock, to bowse it into a perpendicular direction, which tackle is hence denominated the *stock* tackle.

STOCKS, a frame erected on the shore of a river whereon to build shipping. It generally consists of a number of wooden blocks ranged parallel to each other, at convenient distances, and with a gradual declivity towards the water.

STOPPERS, certain short pieces of rope, which are usually knotted at one or both ends, according to the purpose for which they are intended.

STOPPER, of the anchor, a strong rope attached to the cathead, which, passing through the anchor-ring, is afterwards fastened to a timber head, thereby securing the anchor on the bow.

STOPPERS, of the cables, commonly called deck-stoppers, have a large knot and a laniard at one end, and are fastened to a ring-bolt in the deck by the other: they are attached to the cable by the laniard, which is fastened securely round both by several turns passed behind the knot, or about the neck of the stopper, by which means the cable is restrained from running out of the ship when she rides at anchor.

Dog-STOPPER, is a strong rope clenched round the main-mast, and used on particular occasions, to relieve and assist the preceding when the ship rides in a heavy sea, or otherwise bears a great strain on the cable.

Wing-STOPPERS, similar pieces of rope clenched round one of the beams near the ship's side, and serving the same purpose as the preceding.

STOPPERS *of the rigging*, have a knot and a laniard at each end, they are used when the shrouds, stays, or back-stays are cut asunder in battle, or disabled in tempestuous weather, they are then lashed; in the

same manner as those of the cables; to the separated parts of the shroud, &c. which are thereby re-united so as to be fit for immediate service. This, however is only a temporary expedient applied when there is not time or opportunity to refit them by a more complete operation.

STOPPERS, are also pieces of rope used to prevent the running rigging from *coming up* whilst being belayed.

STORE-*keeper*, an officer in the Royal dock-yards, invested with the charge of the principal naval stores, as the sails, anchors, cordage, &c.

STORE-*room*, an apartment or place of reserve, of which there are several in a ship, to contain the provisions or stores of a ship, together with those of her officers. See ROOM.

STOWAGE, the general disposition of the several materials contained in a ship's hold, with regard to their figure, magnitude, or solidity. In the stowage of different articles, as ballast, casks, cases, bales or boxes, there are several general rules to be observed, according to the circumstances or qualities of those materials. The casks which contain any liquid, are, according to the sea phrase, to be *bung up* and *bilge free*, i. e. closely wedged up in a horizontal position, and resting on their quarters, so that their bilges (or where they measure most round) being entirely free cannot rub against each other, or the ship's side, by the motion of the vessel. Dry goods, or such as may be damaged by the water, are to be carefully enclosed in casks, bales, cases, or wrappers, and wedged off from the bottom or sides of the ship, as well as from the bows, masts, and pump-well, &c. Due attention must likewise be had to their disposition, with regard to each other, and to the trim and center of gravity of the ship, so that the heaviest may always be nearest the keel, and the lightest gradually above them.

STRAIT, a narrow channel or arm of the sea, contained between two opposite shores, as the straits of

Gibraltar, the straits of Sunda, the straits of Dover, &c.

STRAKES or STREAKS, the uniform ranges of planks on the bottom and sides of a ship.

Garboard-STREAK, is the lowest streak or range of planks, being let into rabits in the keel below, and in the stem and stern-post at the ends.

STRAND, one of the twists or divisions of which a rope is composed.

STRAND, also implies the sea-beach.

STRANDED, speaking of a cable or rope, signifies that one of its strands is broken.

STRANDED, applied to a vessel, means that she has run aground on the sea-shore.

To STRETCH *along a brace*, &c. to lay it along the decks in readiness for a number of men to lay hold of.

To STRETCH *out*, in rowing, is to bend and fall back to the utmost, in order to take longer hold of the water with the oar, and thereby give the boat the greater velocity.

STRETCH, is frequently used instead of tack; as "we shall make a good stretch."

STRETCHER, a narrow piece of plank placed athwart the bottom of a boat for the rower to place his feet against, in order to communicate a greater effort to his oar.

STRETCHING, is generally understood to imply the progression of a ship under a great surface of sail, when close hauled. The difference between this phrase and *standing* is apparently in the quantity of sail, which, in the latter, may be very moderate, but in stretching generally implies considerable, as "we were *standing* in shore (under easy sail) when we discovered the enemy *stretching* to the Southward," i. e. under a crowd of sail.

To STRIKE, to run ashore, or to beat upon the ground, in passing a bank or shallow.

To STRIKE, also implies to lower or let down any thing, as an ensign or top-sail in saluting, or as the yards, top-gallant-masts, and top-masts, in tempestuous weather; it is, also particularly used to express the a lowering of the colours, in token of surrender to victorious enemy.

STRING, in ship-building, the highest range of planks in a ship's ceiling, or that which lies between the gunnel and the upper edge of the upper-deck-ports.

To STRIP *the masts*, to unrig a ship, or deprive the masts of their machinery and furniture.

STROKE, the sweep of the oars in rowing. Hence we say, "Row a long stroke;" which is intended to push the vessel forward more steadily.

STROKESMAN, the person who rows the aftmost oar in a boat, and gives the stroke which the rest are to follow, so that all the oars may operate together.

STROP, a piece of rope, spliced generally into a circular wreath, and used to surround the body of a block, so that the latter may be hung to any particular situation about the masts, yards, or rigging.

Iron STROP, is a hoop of iron, in lieu of rope, round the shell of a block, and is only used to some particular blocks.

STUDDING-*sails*, certain sails, extended in moderate and steady breezes beyond the skirts of the principal sails, where they appear as wings upon the yard arms. The *top-mast* and *top-gallant* studding-sails (*o*, *q*, *s*, *t*, fig. 64, pl. 5.) are those which are set on the outside of the top-sails and top-gallant-sails. They are spread at the foot by booms, which slide out on the extremities of the lower and top-sail-yards, and their heads or upper edges are attached to small yards, which are hoisted up to the top-sail and top-gallant yard-arms. The lower studding-sails (*n*, *p*, fig. 64, pl. 5.) which are spread beyond the leeches of the main-sail and fore-sail, are fixed nearly in the same manner, only that the boom which extends the foot

is

is hooked to the chains by means of a goose-neck, or else swings off with the sail to which it is suspended, being kept steady abaft by a rope called the *guy*.

STUFF, any composition or melted mass, used to smear or daub the sides or bottom of a ship.

SUPERCARGO, an officer charged with the accounts of the cargo, and all other commercial affairs in a merchant-ship.

SUPPLY, a fresh recruit of provisions or stores sent to a ship or fleet.

SURF, the swell of the sea, which breaks upon the shore or any rock lying near the surface.

SURGE, the same as WAVE.

SURGE, implies also an order to let go a portion of a rope suddenly; as, "Surge the messenger."

SURGEON, a medical man, appointed to superintend the sick and wounded on board a ship of war; for which purpose he has, according to the rate of the ship, from one to six assistants, called SURGEON'S *mates*.

SURVEY, an examination, made by several naval officers, into the state or condition of any stores, provisions, &c. belonging to a ship or a fleet of men of war.

SURVEY, is also applied to the taking the plan of a harbour, as it is on shore to the plotting of land.

SURVEYORS *of the Navy*, two officers who sit at the Navy Board, being invested with the charge of building and repairing his Majesty's ships at the different dock-yards of the kingdom: for which purpose they are trained to the theory and practice of ship-building.

SWAB, a sort of mop, formed of a large bunch of old rope-yarns, and used to clean the decks and cabins of a ship. Fig. 51, pl. 2.

Hand-SWAB, a smaller kind, used for wiping dry the stern-sheets of a boat, washing of plates and dishes, &c. &c.

SWABBER, a man appointed to use the swabs in drying up the decks.

SWAB-*wringers*, people appointed to wash the swabs and wring them dry, ready for use.

To SWAY, to hoist; and is particularly applied to the lower-yards and top-masts, and top-gallant-masts and yards.

SWEEPS, large oars used on board ships of war, in a calm, either to assist the rudder in turning them round, or to encrease the ship's velocity in a chase.

SWEEP *of the tiller*, the circular frame on which the tiller traverses in large ships.

SWEEPING, the act of dragging the bight or loose part of a small rope along the surface of the ground, in a harbour or road, in order to hook and recover some anchor, wreck, or other material sunk at the bottom. It is performed by fastening the two ends of the rope to the sides of two boats, abreast of each other, at some distance. To the middle of the rope is suspended a weight to sink it to the ground, so that as the boats advance by rowing ahead, the rope drags along the bottom.

SWEEPERS, persons appointed (sometimes by way of punishment) to sweep the decks occasionally, with birch brooms.

Captain-SWEEPER, a man who has command over the preceding gang.

SWELL, generally denotes a heavy and continued agitation of the waves, rolling in any particular direction. It is, however, more particularly applied to the fluctuating motion of the sea, which remains after a storm, as also to that which breaks on the sea-shore, &c.

SWIFTER, a rope used to confine the bars of the capstern in their sockets, while the men are turning it round; for which purpose it is passed through holes in the extremities of the bars, so as to attach them firmly to each other like the spokes of a wheel, which operation is called *swifting*.

SWIFTER, is also a strong rope, sometimes used to encircle a boat lengthways, as well to strengthen as to defend her sides from the impression of other boats which

which may run against her. It is usually fixed about nine inches below the boat's gunnel or upper edge.

SWIFTERS, is likewise the name of two shrouds, fixed on the starboard and larboard sides of the lower masts, above all the other shrouds, and are never confined, like them by the catharpings (*s*, *s*, fig. 66, pl. 6).

To SWING, to turn a ship round the anchors or moorings at the change of the wind or tide, and is only applicable when moored by the head, or riding at single anchor.

SWIVEL, a small piece of artillery, carrying a shot of half a pound, and fixed in a socket on the top of a ship's side, stern, or bow, and also in the tops; the trunnions of this piece are contained in a sort of iron crotch, whose lower end terminates in a cylindrical pivot resting in the socket so as to support the weight of the cannon. By means of this swivel, (which gives name to the piece of artillery,) and an iron handle on its cascabel, the gun may be directed by hand to any object.

SWIVEL, is also a strong link of iron used in mooring-chains, &c. which permits the bridles to be turned repeatedly round, as occasion requires.

T.

TABLE-*shore*, a low level shore.

TABLING, a sort of broad hem, formed on the heads, skirts, and bottoms of a ship's sails, to strengthen them in that part which is attached to the bolt-rope.

TACK, a rope used to confine the foremost lower corners of the courses and stay-sails, in a fixed position, when the wind crosses the ship's course obliquely. The same name is also given to the rope employed to pull out the lower corner of a studding-sail to the extremity of its boom. The main-sail and fore-sail of a ship are furnished with a tack on each side, which is formed of a thick rope, tapering to the end, and having a knot wrought upon the largest end, by which it is firmly retained in the clue of the sail; the tack therefore extends the sail to windward, while the sheet extends it to leeward.

TACK, is also applied, by analogy, to that part of any sail to which the tack is usually fastened. A ship is said to be on the starboard or larboard tack, when she is close-hauled with the wind on the starboard or larboard side, and in this sense the distance she sails in that position is considered as the length of the tack, although this is more frequently called a *board*.

To TACK, to change the course from one board to another, or turn the ship about from the starboard to the larboard tack, or *vice versa*, in a contrary wind, as from the course A B to B C, fig. 88, pl. 7. It is performed by turning the ship's prow suddenly to the wind, whereby her head-sails being thrown aback, they receive the impression of the wind in a new direction, and cause her to fall off from the wind to the other tack.

TACKING, is also used in a more enlarged sense, to imply that manœuvre by which a ship makes an oblique progression to windward, in a zigzag direction; this, however, is more usually called *beating* or *turning to windward*.

The operation of tacking is thus performed: the helm being put to the lee-side, the commanding officer calls out, *Helm's a-lee*; the head-sails are immediately made to shiver in the wind, by casting loose their sheets and bowlines; the officer then calls, *Ease tacks and sheets*, which is executed by loosening all the ropes which confine the corners of the lower sails, in order that they may be more readily shifted to the other side. When the ship has turned her head directly to the wind, the order is given to turn about the sails on the main and mizen-masts, by the exclamation *Haul main-sail, haul*; the bowlines and braces are then instantly let go on one side, and as expeditiously drawn in on the other side, so as to wheel the yards about their masts; the lower corner of the main-sail is, by means of its tack, pulled down to its station at the chess-tree, and the after-sails are at the same time adjusted to stand upon the other board. Finally, when the ship has fallen off five or six points, the commanding officer calls *Haul of all*, or *Let go and haul*; then the sails on the foremast are wheeled about by their braces, and as the ship has a tendency to fall off, she is checked by the effort of the helm, which is for that purpose shifted to the *now* lee-side. The foretack, or lower corner of the fore-sail being fixed in its place, the bowlines are hauled, and the other sails are properly arranged to the wind, which is called *trimming all sharp*.

TACKLE, a machine formed by the communication of a rope with an assemblage of blocks, and known in mechanics by the name of pulley. *Tackles* are used in a ship to raise, remove, or secure weighty bodies, to support the masts, or to extend the sails and rigging; they are moveable, as communicating with a runner,

or fixed, as being hooked in an immoveable situation; and they are more or less complicated in proportion to the effects which they are intended to produce. The application of the tackle to mechanical purposes, is called hoisting or bowsing.

Ground TACKLE, implies the anchors, cables, &c. See GROUND.

Tack TACKLE, a small tackle used to pull down the tacks of the principal sails to their respective stations, and particularly attached to the main-sails of brigs, sloops, cutters, and schooners. For the other various tackles, see their particular epithets.

TAFFAREL. the uppermost part of a ship's stern.

TAIL *of a gale*, a name given by sailors to the latter part of a storm, wherein its violence is considerably abated.

TAIL-*block*, a single block, having a short piece of rope attached to it, by which it may be fastened to any object at pleasure, either for convenience or to increase the force applied to the said object.

TAKING *in*, the act of brailing up and furling the sails at sea, particularly when the wind increases; and is generally used in opposition to *setting*.

TALLYING *aft*, a phrase applied to the act of pulling aft the sheets or lower corners of the main-sail and fore-sail.

TAR, a kind of liquid gum, which is procured from pines or fir-trees, and is used to pay the sides of ships and boats, and their rigging and yards, in order to preserve them from the effects of the weather.

TAR, is also a figurative expression for a sailor.

TAR-*pawling*, a broad piece of canvas, well daubed with tar, and used to cover the hatchways of a ship at sea, to prevent the penetration of the rain or sea-water which may at times rush over the decks. See BATTENS.

TARTAN, a small coasting vessel navigated in the Mediterranean sea, and having only one mast and a bowsprit,

bowsprit, the principal sail, which is very large, being extended by a lateen-yard.

TAUGHT, the state of being extended or stretched out, and is usually applied in opposition to *slack*.

TAUGHT-*sail*, implies a great quantity of sail set.

TAUNT, an epithet signifying high or tall. It is particularly expressed of the masts, when they are of an extraordinary length, as *square* is applied to the yards on the same occasion.

TELL-TALE, a small piece of wood, traversing in a groove across the front of the poop-deck, and which, by communicating with a small barrel on the axis of the steering-wheel, indicates the situation of the helm.

TENDER, a small vessel employed to attend a larger one, to supply her with stores, to carry intelligence, &c. Vessels appointed to receive volunteers and impressed men, and to carry them to receiving ships, &c. are also called *tenders*.

TENDING, the movement by which a ship turns or swings round, when at single anchor, or moored by the head, in a tide-way, at every change of tide.

TENON, the end of a piece of timber, cut small to enter into a *mortice*.

THICK-STUFF, planks thicker than those commonly used, which are placed opposite to the several scarfs or joinings in the frame of timbers.

THIMBLE, a sort of iron ring, whose outer surface is hollowed throughout its whole circumference, in order to contain in the channel or cavity a rope which is spliced about it, and by which it may be hung in any particular situation (fig 54, pl. 3). Its use is to defend the eye of the rope which surrounds it from being injured by another rope which passes through it, (as fig. 55, pl. 3.) or by the hook of a tackle which is hung upon it.

THOLES, small pins driven perpendicularly into the gunwale of a boat, and serving to retain the oars in that space which is called the *rowlock*; sometimes there is only one pin to each oar, as in the boats navigated in the

Mediterranean sea. In that case the oar is retained upon the pin, by means of a strop or of a cleat, with a hole through it, nailed on the side of the oar.

THROAT, a name given to that end of a gaff which is next the mast, and is opposed to *peek*, which implies the outer end, hence

THROAT-*brails*, are those which are attached to the gaff close to the mast. See BRAILS.

THROAT-*halliards*, ropes or tackles applied to hoist the inner part of the gaff and its appendant portion of the sail.

To THRUM, to insert in a sail or mat, &c. through small holes made by a bolt-rope-needle, or a marline spike, a number of short pieces of rope-yarn, or spun-yarn.

THUS; *very well* THUS, the order to the helmsman to keep the ship in her present direction when sailing close hauled. See STEERING.

THWARTS, the seats or benches of a boat whereon the rowers sit to manage the oars.

THWART-*ships*, across the ship. See ATHWART.

TIDE, a regular periodical current of the water setting alternately in a flux and reflux, and is produced by the influence of the moon. See LEE-TIDE, NEAP-TIDE, SPRING-TIDE, &c.

TIDE-*gate*, a place in which a tide runs with great velocity.

To TIDE, to work in or out of a river, harbour, or channel by favour of the tide, and anchoring whenever it becomes adverse.

TIDES-*man*, an officer appointed by the cuſtom-house, to reside on board of merchantships while they have any customable goods on board.

TIDE-*waiter*, a custom-house officer, whose duty it is to attend on the quays to see the goods landed, &c.

TIDE-*way*, the channel in which the tide sets.

TIER, a name given to the range of cannon mounted on one side of a ship's deck.

TIER *of the cable*, is a range of the *fakes* or windings of the cable, which are laid within one another in an horizontal position.

Cable

Cable-TIER, the space in the midst of a cable when it is coiled, also the place in which it is coiled.

TIER, also implies a range of casks in the hold, hence we say the

Ground-TIER, or that which is next above the Kelson, *the second* TIER and *upper* TIER.

TIGHT, the quality whereby a vessel resists the penetration of any fluid, whether compressing its surface or contained within it. Hence a ship is said to be *tight* when her planks are so solid as to prevent the entrance of the water, and a cask is called *tight* when none of the liquid contained therein can issue through or between the staves: in both senses it is opposed to LEAKY, which see.

TILLER, the bar or lever employed to turn the rudder in steering. See HELM.

TILLER-*rope*, the rope which forms a communication between the fore end of the tiller and the wheel, and is usually made of untarred rope.

TILT, a small canopy or awning of canvas or other cloth, extended over the stern sheets of a boat, and supported by iron work, or broad laths of flexible wood, incurvated. The *tilt* is principally used to keep off rain, as an *awning* is intended to defend from the Sun's heat.

TIMBERS, the ribs of a ship, or the incurvated pieces of wood branching outward from the keel in a vertical direction, so as to give strength, figure and solidity to the whole fabric. One timber is composed of several pieces united into one frame, which is accordingly called a frame of timbers by the artificers.

Square TIMBERS, are those whose planes are perpendicular to the keel.

Cant TIMBERS, are those which are placed obliquely on the keel, as at the extremities of a ship.

Knuckle TIMBERS, are the foremost cant timbers on a ship's bow, the hindmost on the quarter are termed *fashion pieces*.

TIMBER *and room*, or *room and space*, is the distance

between the moulding edges of two adjoining timbers which always contain the breadth of two timbers and sometimes two or three inches between them.

Filling TIMBERS, are those which are put up between the frames.

TIMBER-*heads*. See KEVEL-*heads*.

TIMONEER, the helmsman or person who manages the helm to direct the ship's course.

TOGETHER, the order given to the men in the exercises of heaving, rowing, hauling, hoisting, &c. to act all in concert, or at the same time.

TOGGEL, a small pin of wood from four to six inches in length and usually tapering from the middle towards the extremities, it is sometimes used instead of a hook in fixing a tackle, &c. In ships of war it is usual to fix toggels upon the running parts of the topsail sheets, the jears, &c. when preparing for action, in such manner that if the rope is shot away below, the toggel may stop the yard from coming down.

TOMPION, a circular piece of wood used to stop the mouth of a cannon. At sea the tompions are carefully encircled with tallow or putty to prevent the penetration of the water into the bore, whereby the powder contained in the chamber might be rendered unfit for service.

TONNAGE, the same with BURTHEN, which see.

TOP, a sort of platform surrounding the lower mast head, from which it projects on all sides like a scaffold as *p. p.* fig. 66, pl. 6. The principal intention of the top is to extend the top mast shrouds so as to form a greater angle with the mast, and thereby give additional support to the latter. It is sustained by certain timbers fixed upon the hounds and cheeks of the masts, and called the trestle-trees and cross-trees. In ships of war the tops are furnished with swivels, musketry, and other fire arms, and are guarded with a fence of hammocks in time of action.

TOP-*armour*, a rail about three feet high, extending the width of the top on the afterside, supported by stanchions

chions, and equipped with a netting and sometimes with painted canvas. See 2. 2. fig. 63, pl. 4.

TOP-*cloth*, a large piece of canvas used to cover the hammocks which are lashed in the top when prepared for action.

TOP-*block*. See BLOCK.

TOP-*chain*. See CHAIN.

Top-*lantern*, a large lantern placed in the after part of a top in any ship where an admiral's flag or commodore's pendant is flying. See *r*, fig. 66, pl. 6.

TOP-*mast*, the second division of a mast, or that part next above the lower-mast. See MAST.

TOP-*gallant-mast*, the mast next above the top-mast, and is generally the uppermost mast.

TOP-*rope*, a rope employed to sway up a top-mast or top-gallant-mast in order to fix it in its place or to lower it in tempestuous weather, or when it is no longer necessary. The top-rope passes through a block which is hooked on one side of the cap and afterwards through a hole furnished with a sheave on the lower end of the top-mast, it is then brought upwards on the other side of the mast, where it is fastened to an eye-bolt in the cap: To the lower end of the top-mast top-rope is fixed a tackle. See TOP-TACKLE.

TOP-*rope*, is also the name of a rope used in swaying up or lowering down the top-gallant-yards.

TOP-*sails*, large sails extending across the top-masts by the top-sail-yards above, and by the lower-yards beneath, being fastened to the former by earings and robands, and to the latter by means of the top-sail-sheets, which passing through two great blocks fixed on its extremities, and from thence to two other blocks fixed on the inner part of the yard close by the mast, lead downwards to the deck.

TOP-*gallant-sails*, are extended above the top-sail-yards, in the same manner as the top-sails are extended above the lower-yards.

TOP-*tackle*, a large tackle hooked to the lower end of the top-mast top-rope, and to the deck, in order to increase

increase the mechanical power in hoisting the top-mast. It is composed of two strong iron-bound double or triple blocks, the hooks of which work on a swivel.

Laying-TOP, a cylindrical piece of wood, having three or four scores or notches on its surface, used in rope-making, and varying in its size according to the thickness of the rope, for which it is intended.

TOPPING, the act of pulling one of the extremities of a yard higher than the other, by slackening one of the lifts and pulling upon the opposite one.

TOPPING-*lift*, a large and strong tackle employed to suspend or top the outer end of a gaff, or of the boom of a cutter's, brig's, sloop's or schooner's main-sail.

TOP-*men*, persons stationed in the several tops to attend the taking in or setting of the upper sails.

TORNADO, a violent squall of wind rising suddenly from the shore, and afterwards veering round the compass like a hurricane, they are most frequent on the coast of Guinea and South Barbary.

To TOSS *the oars up*, is to put them in a perpendicular direction, ready to let them all fall at once into the water, and is intended as a compliment to the passengers in the boat.

TOUCHING, is the state of a ship's sails, when they first begin to shiver with their edges in the direction of the wind. It is either occassioned by an alteration in the ship's course, or by a change of the wind. See FULL AND BY.

TOUCHING-*at*, implies the circumstance of stopping or anchoring occasionally at some intermediate port in the course of the voyage.

TOUCH-*and-go*, is spoken of a ship, when under sail, she rubs against the ground with her keel without much diminution of her velocity.

To TOW, to draw a ship or boat forward in the water, by means of a rope attached to another vessel or boat, which advances by the effort of *rowing or sailing*.

TOWING-*over-board*, implies the act of drawing any thing after a ship or boat when she is sailing or row-

ing, which has previously been on board that ship or boat.

TOW-*line*, a small hawser generally used to remove a ship from one part of an harbour or road to another by means of anchors, capsterns, &c. see WARPING. It is also employed occasionally to moor a small vessel in a harbour conveniently sheltered from the wind and sea.

Tow-*rope*, a name given to any cable or other rope used in the exercise of towing.

TRACK *of a ship*. See WAKE.

TRACKING, the act of pulling any vessel or floating body along the stream of a canal or river, by means of a rope extending from the vessel, &c. to the adjacent shore, and drawn along the banks of a river by men or horses. Whence

TRACK-*scout*, a vessel employed to carry goods and passengers up and down the rivers or canals in Holland, and the countries bordering on the Baltic Sea.

TRADE, implies the constant destination of any particular merchant vessel, as the Lisbon *trade*, West India *trade*, &c.

TRADE-*winds*, certain regular winds blowing within or near the tropics, and being either periodical or perpetual. Thus, in the Indian Ocean they blow alternately from two opposite points of the compass, and in the Atlantic Ocean continue, almost without intermission, in one direction. See MONSOON.

TRAIN, the hinder part of a gun-carriage; also a line of gunpowder, or other combustible materials, forming a communication with any body intended to be set on fire or exploded.

TRAIN-*tackle*, a combination of pulleys which is, during action, hooked to an eye-bolt in the train of the carriage, and to a ring-bolt in the deck. Its use is to prevent the gun from running out of the port whilst loading.

TRANSOMS, certain beams or timbers extended across the stern-post of a ship, to fortify her after-part, and give

give it the figure most suitable to the service for which she is calculated.

Helm port TRANSOM, that which is at the head of the stern-post, and forms the upper part of the gun-room-ports.

Wing TRANSOM, the next below, and forming the lower-part.

Deck TRANSOM, that whereon all the lower-deck planks are rabitted.

The 1*st*, 2*d*, 3*d* TRANSOMS, &c. are respectively below the preceding.

TRANSOM *knees*, strong pieces of curved timber which connect the ship's quarter to the transoms, being bolted to the latter and to the after-timbers. See KNEES.

TRANSPORT. See SHIP.

TRANSPORT *office*, a department under government directed by commissioners, who charter vessels and appoint officers for the conveying troops to or from this country, they are also to provide accommodation and provision for all prisoners of war, and to regulate their exchange by cartel, &c.

To TRANSPORT *a ship*, is to move her by means of hawsers, anchors, &c. from one part of an harbour to another part.

TRAVELLER, one or more iron thimbles, with a rope spliced round them, sometimes forming a kind of tail, but more generally a species of grommet, and used on various occasions.

TRAVELLING *back stays*, are so denominated from their having a traveller upon the top-mast, which slides down as the top-sail is lowered, thereby confining the principal support of the back stay to that part of the mast immediately above the top-sail yard. See BACKSTAY.

TRAVELLING *martingale*, a similar contrivance adapted to a martingale to support the jib boom in that particular part where the jib-tack is fixed. See MARTINGALE.

TRA-

TRAVERSE, implies an assemblage of various courses forming different angles with the meridian.

TRAVERSE *board*, a thin circular piece of board, marked with all the points of the compass, and having eight holes bored in each, and eight small pegs hanging from the center of the board. It is used to determine the different courses run by a ship during the period of a watch, which is performed by sticking one peg into the point on which the ship has run each half hour.

TREENAILS, certain long cylindrical wooden pins employed to connect the planks of the ship's side and bottom to the corresponding timbers, and are justly esteemed superior to spike-nails, or bolts, which are liable to rust and loosen: the thickness of the tree-nails is usually proportioned to the length of the ship, allowing one inch to every hundred feet.

To TREND, to incline; speaking of a coast as, the land trends to the South West.

Trestle TREES, two strong bars of timber fixed horizontally on the opposite sides of the lower-mast-head, to support the frame of the top and the weight of the top-mast.

To TRICE, to haul or tie up by means of a small rope or line.

TRICING-*line*, a small cord generally passing through a block or thimble, and used to hoist up any object to a higher station, in order to render it less inconvenient, such are the tricing lines of the yard-tackles, &c.

TRIM, the state or disposition of the ballast, cargo, masts, &c. by which a ship is best equipped for the several purposes of navigation.

The TRIM of the hold, implies the arrangement of the materials therein, by which a ship is either brought by the head or stern, or depressed in the water to a sufficient depth to carry sail well and advance rapidly.

The TRIM *of the masts*, denotes their position with regard to the ship and to each other, whether near, or distant, far foward, or much aft, erect, or raking.

TRIM *of the sails*, signifies the general arrangement which is best calculated to accelerate the ships course according to the direction of the wind. See CLOSE HAULED and LARGE.

TRIM *the boat*. See BOAT.

Sharp TRIMMED, the situation of a ship's sails in a *scant* wind.

TRIP, a phrase implying an outward-bound voyage, particularly in the coasting navigation. It also denotes a single board in plying to windward.

TRIPPING, the movement by which an anchor is loosened from the bottom, either by its cable or buoy-rope.

TRIPPING-*line*, a small rope serving to unrig the lower-top-gallant-yard-arm, when in the act of striking or lowering it down upon deck.

TROPICS, two imaginary lines upon the globe parallel to the equator, and at 23½ degrees distance on each side of it; they form the boundaries of the Sun's declination North and South.

TROUGH, a name given to the hollow or interval between two high waves which resembles a broad and deep trench perpetually fluctuating, hence a ship rolls heaviest when she lies in the trough of the sea.

TROWSERS, a sort of loose long breeches generally worn by persons on board of a ship.

TRUCKS, pieces of wood of various forms, and used for different purposes, as

TRUCKS *of a gun-carriage*. See CARRIAGE.

TRUCKS *of the mast-head*, circular pieces of wood fixed as a cap on the top-gallant-mast-heads as, *e*, fig. 66, pl. 6, they are generally furnished with two or more small pullies, through which the pendant and signal haliards are reeved.

TRUCKS *of the parrels*, are spherical pieces of wood, *b*, fig. 57, pl. 3, having a hole through them, in which is inserted the rope of the parrel. See PARREL.

TRUCKS *of the shrouds*, or *seizing* TRUCKS, pieces something resembling the preceding, except that they are scored

scored round the outside, fig. 49, pl. 2, to receive a seizing, and are fixed to the shrouds, fig. 48, pl. 2, in order to *lead* the running rigging and prevent it from hanging loose.

Speaking-TRUMPET. See SPEAKING.

Fire-TRUNKS, wooden funnels fixed in fire-ships under the shrouds, to convey the flames to the masts, rigging and sails.

TRUNNIONS, the two knobs or arms which project from the opposite sides of a piece of artillery, and serve to support it in the carriage.

TRUSS, a machine employed to pull a lower-yard close to its mast, and retain it firmly in that position. See PARREL.

TRUSS-*tackle*, a combination of pullies fixed to the ends of the truss pendants to bowse them taught.

TRYING, the situation in which a ship lies nearly in the trough or hollow of the sea in a tempest, or it is the act of laying to in a storm which may be performed under any of the courses reefed, if requisite, or even under bare poles, the helm being lash'd alee.

TRY-*sail*, a sail used by cutters, luggers, sloops, &c. in lieu of their mainsail, during a storm.

TRY-*sail*, is also the name of a sail on board of a SNOW, which see.

Match-TUB, the half of a cask, having notches sawn in its edge wherein the lighted matches are placed during action, the bottom being covered with water to extinguish any sparks which may fall from the match.

TOP-SAIL-*haliard-tubs*, similar half casks, in which the top-sail haliards are coiled.

Grog-TUB, a half cask, set apart for mixing the daily allowance of spirits with water, prior to its being served out to the ship's company.

TUCK, that part of a ship where the ends of the bottom planks are collected together, immediately under the stem or counter.

A square TUCK, is terminated above by the wing tran-

som and below, and on each side by the fashion-pieces.

TUMBLING-HOME, that part of a ship's side which falls inward above the extreme breadth, so as to make the ship gradually narrower from the lower-deck upwards.

TURN *of the tide*, the change from ebb to flood, or the contrary.

TURN *of a rope*, the applying it once round any fixed body, as a timber-head, &c. in order to *hold on*.

TURN *in the hawse*. See HAWSE.

To TURN *in*, a phrase implying to go to bed, as

To TURN *out*, is to get up or out of bed.

To TURN *in a dead eye* or *heart*, to seize the end of a shroud or stay, &c. securely round it.

To TURN *over men*, to discharge them out of one ship into another.

To TURN *the hands up*, to call the ship's company upon deck for any particular purpose.

TURNING *to windward*, that operation in sailing, wherein a ship endeavours to make a progress against the direction of the wind by a compound course inclined to the place of her destination; this is otherwise called *plying* or *beating to windward*.

TWINE, a kind of strong thread, used in sail-making, and is of two kinds, *Extra* for sewing the seams, and *Ordinary* for the bolt-ropes.

TYE, a sort of runner or thick rope, used to transmit the effort of a tackle to any yard or gaff. The tye is either passed through a block fixed to the mast-head, and afterwards through another block attached to the yard or gaff, and returns to the mast-head, or the end of it is simply passed over a sheave *in* the mast-head, and then fastened to the said yard or gaff.

V.

VAN, the foremost division of a naval armament. or that part which leads the way to battle, or advances first in the order of sailing.

VANE, a piece of bunting sewed upon a wooden frame called the *stock*, which turns upon a spindle at the mast-head: Its use is to shew the direction of the wind.

Distinguishing-VANE, serves by its situation, to denote what squadron a ship belongs to, and by its colour or combination of colours, to point out the particular ship which bears it.

Dog-VANE, a small light vane, formed of thin slips of cork, stuck round with feathers, and strung upon a piece of twine. It is usually fastened to the top of a half-pike, and placed on the weather side of the quarter-deck, in order to shew the helm's-man the direction of the wind.

VANGS, a sort of traces to steady the mizen peek, extending from the peek downwards to the aftmoft part of the ship's quarters, where they are hooked and drawn tight.

VARIATION, the angle contained between the true and the magnetic meridian, the variation of the magnetic needle was discovered about 1580, when it was 11° 15′ or one point Easterly, this quantity continued decreasing till 1660, when it was found, that in London the needle pointed due North; since which time it has been continually increasing to the Westward, and is now more than 22° to the Westward of the North point. This variation is different in different parts of the World, being East in some places while it is West in others, and while at some parts there is no variation.

To VEER *and haul*, to pull a rope tight, by drawing it in and slackening it alternately till the body to which it is applied, acquires an additional motion, like the increased vibrations of a pendulum, so that the rope is strained to a greater tension with more facility and dispatch; this method is particularly used in hauling the bowlines.

The wind is said to *veer and haul*, when it alters its direction and becomes more or less fair. Thus it is said to *veer* aft and to *haul* forward.

To VEER *away* the Cable. See CABLE.

VEERING-*ship*. See *to* WARE.

VENT. See CANNON.

VENTILATOR, the name of various machines contrived to expel the foul air from the store rooms and hold, and introduce fresh air in its stead.

VESSEL, a general name given to all the different sorts of ships which are navigated in the ocean, or in canals and rivers.

* *Agent*-VICTUALLER. See AGENT-*victualler*.

VIOL, a large rope, used to unmoor or heave up the anchors, by transmitting the effort of the capstern to the cables. This name is more particularly applied to a thick rope, which being attached to the cable, passes through a large block, and thence to the fore capstern: when it goes direct from the cable to the main capstern, it is more usually called the *messenger*.

VIOL-*block*, a very large block, lashed to the main-mast, through which the viol is reeved.

To UNBALLAST, to discharge or get the ballast out of a ship.

To UNBEND, implies to take off the sails from their yards and stays; to cast loose the cables from their anchors; or to untie one rope from another.

To UNBIT, to remove the turns of a cable from off the bits.

UNDER-*current*, a stream running below the surface of the water.

UNDER-*foot*, is said of an anchor when first let go.

To

To UNDER-*run*, to pass under in a boat, in order to examine any part of a cable, to discover whether it is damaged or entangled.

To UNDER-*run* a tackle, is to separate the several parts of which it is composed, and range them in order, so that the general effort may not be interrupted when it is put in motion.

UNDER-*sail*, the state of a ship when she is loosened from her moorings, and under the government of her sails and rudder,

UNDER-*set*, a motion of the water beneath the surface, produced by the wind impelling the upper part directly upon the shore of a bay, whereby the water having no other means of regaining its level, necessarily takes a direction contrary to the wind, in that situation where the wind has less power, namely below the surface.

UNLACING, the act of loosening and taking off the bonnet of a sail from its principal part.

To UNMOOR, to reduce a ship to the state of riding by a single anchor and cable, after she has been moored or fastened by two or more cables.

UNREEVING, the act of withdrawing or taking out a rope from any block, thimble, dead-eye, &c. through which it had formerly passed.

To UNRIG, to deprive a ship of her standing and running rigging.

To UNSHIP, to remove any piece of timber or wood from the place in which it was fitted, as "unship the capstern bars," "unship your oars," &c.

To UNSLING, to take off the SLINGS, which see.

VOLLEY *of small arms*, a discharge of several muskets at the same instant.

VOLUNTEER, a man who enters willingly to serve on board a ship of war.

VOLUNTEER, also implies a man, who being in the King's service, freely offers himself to serve in a particular expedition of danger or fatigue.

UP-*courses*, is the order to haul them up by means of the clue-garnets, buntlines, &c.

UP *with the helm*, put it to the weather side.

UP *and down*, is said of the anchor when the cable is hove in so as to be perpendicular to the hawse-holes.

UPPER-*deck*, the highest of those decks which are continued throughout the whole length of a ship.

UPPER-*Works*, a general name given to all that part of a ship which is above the surface of the water when she is properly balanced for a sea-voyage.

UPRIGHT, the situation wherein the opposite sides of a ship are equally elevated above the surface of the water, or when she neither inclines to the right nor left, with regard to the vertical position of her stem and stern-post.

USES AND CUSTOMS, OF THE SEA, certain general principles, which compose the basis of marine jurisprudence, and regulate the affairs of commerce and navigation.

W.

WAD, a quantity of old rope yarns, rolled firmly together into the form of a ball and used to confine a shot or shell, together with its charge of powder, in the breech of a piece of artillery.

WAFT, a signal displayed from the stern of a ship for some particular purpose, by hoisting the ensign furled up together into a long roll, to the head of its staff, or to the mizen-peek. It is particularly used to summon the ship's boats off from the shore.

WAIST, that part of a ship which is contained between the quarter-deck and forecastle, being usually a hollow space, with an ascent of several steps to either of those places. When the waist of a merchant ship is only one

or two steps of descent from the quarter-deck and forecastle she is said to be *galley*-built; but when it is considerably deeper, as with 6 or 7 steps, she is called *frigate*-built. See DECK, DEEP-WAISTED, and FRIGATE.

WAIST-*cloths*, coverings of canvas or tarpauling for the hammocks which are stowed on the gangways, between the quarter-deck and forecastle.

WAISTERS, people stationed in the waist in working the ship; as they have little else of duty but pulling and hoisting, they are for the most part selected from the strongest landsmen and ordinary seamen.

WAKE, the print or track impressed by the course of a ship on the surface of the water. It is formed by the re-union of the body of water, which was separated by the ship's bottom whilst moving through it, and may be seen to a considerable distance behind the stern, as smoother than the rest of the sea, hence it is usually observed by the compass, to discover the angle of lee-way.

A ship is said to be in the *wake* of another, when she follows her upon the same track, or on a line, supposed to be formed in the continuation of her keel. Thus, B is in the wake of A; and C is standing across the wake of both, fig. 87, pl. 7. Two distant objects, observed at sea, are termed in the *wake* of each other, when the view of the farthest is intercepted by the nearest, so that the observer's eye and the two objects are all placed upon the same right line, as A and B, seen from C, fig. 87, pl. 7.

WALES, an assemblage of strong planks, extending along a ship's side, throughout the whole length, at different heights and serving to reinforce the decks, and form the curves, by which the vessel appears light and graceful upon the water. They are usually distinguished into the main-wale, and the channel-wale, the former is below the lower-deck ports, and the latter between the top of those ports, and the sills of the upper-deck ports.

WALL-*sided*, the figure of a ship's side when, instead of being incurvated, so as to become gradually narrower towards the upper part, it is nearly perpendicular to the surface of the water, like a wall.

WALL-*knot*. See KNOT.

To WARE, to cause a ship to change her course from one board to the other, by turning her stern to the wind, as in the curve, A B C, fig. 89. pl. 7, hence it is used in opposition to *tacking*, wherein the head is turned to the wind, and the stern to leeward. Since by this movement the ship loses considerably more ground than by tacking, it is rarely practised, except in cases of necessity, or for delay, as when the violence of the wind and sea renders tacking impracticable, or when the course is slackened to wait for a pilot, or for some other ship, &c. In order to ware ship, the after sails are brailed up, or made to shiver in the wind, whilst the head sails are increased, the helm being put hard aweather or to windward: by which means the forepart is turned about from the wind; but so soon as the wind will act upon that quarter, which was before to leeward, the after sails must be extended, so as to receive the greatest impulse, whilst the head sails are braced obliquely, whereby the vessel will wheel round, with her bow to windward, and become close hauled upon the contrary tack to that on which she formerly stood.

WARP, a rope or hawser, employed occasionally to remove a ship from one place to another, in a port, road, or river, hence

To WARP, is to change the situation of a ship, by pulling her from one part of a harbour &c. to some other, by means of *warps*, which are attached to buoys, to other ships, to anchors sunk in the bottom, or to certain stations upon the shore, as posts, rings, trees, &c. The ship is then drawn forwards, to those stations either by pulling on the warps by hand, or by the application of some purchase, as a tackle, windlass, or capstern.

stern. When this operation is performed by the ship's lesser anchors, these machines, together with their warps, are carried out in the boats alternately, towards the place where the ship is endeavouring to arrive, so that when she is drawn up close to one anchor, the other is carried out to a competent distance before her, and being sunk, serves to fix the other warp by which she may be farther advanced.

WARD-*room*. See *Ward*-ROOM.

WARRANT, the name given to a kind of commission, or authority to those officers, appointed by the Navy-board, while the authorities granted by the Admiralty are stiled *commissions*.

WARRANT-*officer*, an officer holding a warrant from the Navy-board, such are the master, surgeon, purser, boatswain, gunner, carpenter, &c.

WASH. See OAR.

WASH-*board*, a broad thin plank, fixed occasionally on the top of a boat or other small vessel's side, so as to increase the height thereof, but may be removed at pleasure. It is used to prevent the sea from breaking into the vessel in rough weather.

WASH-*boards*, are also pieces of plank, which fit on the sills of the lower-deck ports, serving for the same purpose as the preceding.

WATCH, implies the division of the ship's company into two parties or guards, one of which is called the starboard, and the other the larboard-watch, these epithets allude to the situation of their hammocks when hung up, the two watches are however occasionally separated into three or four divisions, as in a road, for an anchor-watch, &c. But the officers of the Navy usually divide themselves into three watches, in order to lighten their duty.

Starboard-watch, hoay.
Starbow-lines, hoay.
Larboard watch, hoay.
Larbow-lines, hoay.
} Exclamations used by the boatswain's-mates when summoning their respective watches upon deck, to relieve each other.

WATCH-

WATCH, the space of time, wherein one DIVISION of the ship's crew remains upon deck, to perform the necessary services, whilst the rest are relieved from duty. The length of the sea-watch in the British Marine, if we except the dog-watches, is four hours. In a ship of war, the watch is generally commanded by a lieutenant, and in merchant ships by one of the mates.

Dog-WATCHES, are the two reliefs, which take place between 4 and 8 o'clock in the afternoon, each of which is only 2 hours, the intent of these watches is to change the turn of the night-watch every 24 hours.

Anchor-WATCH, is a small guard kept constantly upon deck, while the ship rides at single anchor.

The first WATCH, is from 8 o'clock in the evening, till 12 at night.

The middle WATCH, continues from 12 till 4 in the morning.

The morning WATCH, comprehends from 4 to 8 o'clock in the morning.

A buoy is said to *watch* when it continues floating upon the surface of the sea.

WATCH, is also a word used in throwing the deep sea-lead, when each man, on letting go the last turn of line in his hand, calls to the next abaft him "*Watch.*"

WATCH-*glasses*. See GLASS.

To set the WATCH, to appoint one division of the crew to enter upon the duty of the watch; hence it is equivalent to mounting the guard in the army.

WATER-*borne*, the state of a ship, with regard to the water surrounding her bottom, when there is barely a sufficient depth of it to float her off the ground

For *bilge*-WATER, *dead*-WATER, *foul*-WATER, &c. See those epithets.

WATERING-*place*, a situation where boats can load fresh water for the use of the ship.

WATER-*lines*, horizontal lines, supposed to be drawn about

about the outside of a ship's bottom, close to the surface of the water in which she floats, they are, accordingly higher or lower upon the bottom in proportion to the depth of the column of water required to float her.

Load WATER-*line*, the largest of all the above lines, or that which the surface of the water describes on a ship's bottom, when she is loaded or ready for sea.

WATER-*logged*, the state of a ship, when by receiving a great quantity of water into her hold, by leaking, &c. she has become heavy and inactive upon the sea, so as to yield without resistance to the efforts of every wave rushing over her decks. In this dangerous situation there is no resource for the crew, except to free her by the pumps, or to abandon her by getting into the boats.

WATER-*sail*, a small sail spread occasionally under the lower studding-sail or driver-boom, in a fair wind and smooth sea.

WATER-*spout*, an extraordinary and dangerous meteor, consisting of a large mass of water collected in a sort of vertical column, by the force of a whirlwind, and moved with rapidity along the surface of the sea. As an approach to one would be attended with great danger, it is usual to fire cannon at them to break them.

WATER-*ways*, long pieces of timber serving to connect the sides of a ship to her decks, and form a channel to carry off the water from the latter, by means of scuppers, which are cut through the former.

WAVE, a volume of water elevated by the action of the wind upon its surface into a state of agitation.

WAY *of a ship*, the course or progress which she makes on the water when under sail. Thus, when she begins her motion, she is said to be *under-way*; and when that motion increases, she is said to have *fresh-way* through the water. Hence also, she is said to have *head-way* or *stern-way*, to gather *way* or to lose *way*, &c.

WEATHER, the state of the atmosphere with regard

to the degree of the wind, to heat or cold, or to dryness and moisture, but particularly to the first.

WEATHER is also applied to every thing lying to windward of a particular situation: hence a ship is said to have the *weather*-gage of another, when she is further to windward. Thus also, when a ship under sail presents either of her sides to the wind, it is then called the *weather*-side, and all the rigging, &c. situated thereon are distinguished by the same epithet, as the *weather*-shrouds, *weather*-lifts, *weather*-braces, *weather*-bow, *weather*-quarter, &c. See LEE. Hence also

To WEATHER is to sail to windward of some ship, bank, or head-land.

WEATHER-*bit*, a turn of the cable about the end of the windlass, outside of the knight-heads. It is used to check the cable, in order to slacken it gradually in tempestuous weather, or when the ship rides in a strong current.

WEATHER-*boards* are pieces of plank placed in the ports of a ship, when laid up in ordinary; they are in an inclined position, so as to turn off the rain without preventing the circulation of air.

WEATHER-*cloths*, long pieces of canvas, or tarpauling, used to preserve the hammocks from injury by weather when stowed: also to defend persons from the wind and *spray*.

WEATHER-*helm*, a ship is said to carry a weather-helm when she is inclined to come too near the wind, and therefore requires the helm to be kept constantly a little to windward.

WEATHER-*shore*, the shore which lies to windward of a ship.

WEATHER-*tide* implies that which, by setting against a ship's lee-side, while under sail, forces her up to windward.

WEATHER-*rolls*, those inclinations which a ship makes to windward in a heavy sea; those which she makes to lee-ward being termed *lee-lurches*.

WEATHER-*beaten*, an epithet applied to any thing which appears to have borne much hard or rough weather.

To

To WEIGH, to heave up the anchor of a ship from the ground, in order to prepare her for sailing.

To WEIGH is also applied to the raising any great weight from the ground, as a sunken ship, &c.

WELL, an apartment formed in the middle of a ship's hold to inclose the pumps from the bottom to the lower-deck. Its use is to defend the pumps from damage, and prevent the entrance of ballast, &c. By means of this inclosure the artificers may likewise more readily descend into the hold, to examine or repair the pumps as occasion requires.

WELL *of a fishing-vessel*, an apartment in the middle of the hold, which is entirely detached from the rest, being lined with lead on every side, and having the bottom thereof perforated with a number of small holes, through the floor, so that the water passing into the well is always as fresh as that in the sea, and is nevertheless prevented from communicating with other parts of the hold. Its use is to preserve the fish alive which are put into it.

WELL-*room of a boat*, the place in the bottom where the water lies between the ceiling and the platform of the stern-sheets, from whence it is thrown out into the sea with a scoop.

WHARF, a perpendicular building of wood or stone raised on the shore of a road or harbour, for the convenience of lading or discharging a vessel by means of cranes, tackles, capsterns, &c.

WHARFINGER, the person who has the charge of a wharf, and takes account of all the articles landed thereon or removed from it, for which he receives a certain fee called *Wharfage*, as a due to the proprietor for the rent of the quay or wharf, and for the use of his machines and furniture.

WHEEL *of the helm*. See HELM.

WHELPS. See CAPSTERN.

WHERRY, a name given to several kinds of light boats used on the sea coast and up rivers.

WHERRY is also applied to some decked vessels used in fishing, in different parts of Great Britain and Ireland.

WHIP, a sort of small tackle either formed by the communication of a rope with a single immoveable block, or with two blocks, one of which is fixed and the other moveable, and is generally used to hoist up light bodies, such as empty casks, &c.

To WHIP, or WHIP *up*, to hoist light bodies up into the top, or out of the hold, &c. by means of a whip.

To WHIP is also to tie a piece of twine or a rope-yarn, &c. round the end of a rope, to prevent its being untwisted and loosened.

Boatswain's WHISTLE, see CALL.

WHIRLS, small hooks fastened into cylindrical pieces of wood, which communicate by means of a leather strap with a spoke-wheel, whereby three of them are set in motion at once; they are used for spinning of yarn for ropes.

WHOODINGS, those ends of planks which are let into the rabbits of the stem, the stern-post, &c. See RABBIT.

A WILD *roadstead* implies one that is open or exposed to the wind and sea.

WINCH, a cylindrical piece of timber, having an axis whose extremities rest in two channels placed horizontally or perpendicularly, and furnished with *clicks* or *pawls*. It is turned about by means of a handle resembling that of a grind-stone, and is generally employed as a purchase, by which a rope or tackle-fall may be more powerfully applied to any object than when used singly.

WINCH, is also the name of certain long iron handles by which the chain-pumps are worked.

WIND, a stream or current of air which may be felt, and usually blows from one part of the horizon to its opposite part.

The horizon being divided into 32 points, (see COMPASS) the wind which blows from either of them has an assignable name.

WINDS are either constant or variable, general or particular. Constant winds are such as blow the same way for one or more days; variable winds are such as shift frequently within the day; a general or reigning wind is that which blows the same way over a large tract of earth almost the whole year; a particular wind is what blows in any place, sometimes one way and sometimes another. If the wind blows gently it is called a gentle breeze; if it blows moderately, it is called a steady breeze; if harder, it is called a gale, or a stiff or taught gale; and, if it blows with violence, it is termed a storm or hard gale.

With regard to the ship's course, the wind is termed a foul wind or a fair wind, a scant wind or a leading wind: these terms being respectively opposed to each other.

Trade-WINDS, are such as blow, throughout the year from one quarter, and prevail between the latitudes of 30° North and 30° South, constantly blowing between the North-East and South-East points, on the Atlantic and Pacific oceans.

In some parts of the Indian ocean, the winds blow one half of the year one way, and the other half the contrary way, which are called MONSOONS.

WIND's-*eye* implies the direct point from which the wind blows.

Between WIND *and water*, signifies that part of a ship's bottom, which is frequently brought above the water by her agitation when at sea.

To WIND *a ship* or *boat*, is to change her position by bringing her stern to lie in the situation of the head, or directly opposite to its former situation.

WINDAGE, the difference between the diameter of a piece of artillery, and the diameter of the shot or shell corresponding thereto.

WINDING *a call*, the act of blowing or piping on a boatswain's whistle, so as to communicate the necessary orders of hoisting, heaving, belaying, veering away, &c. See CALL.

WIND-*bound*. See BOUND.

WINDING-*tackle*, a name usually given to a tackle, formed of one fixed triple block, and one double or triple moveable block. It is principally employed to hoist up any weighty materials, such as the cannon into, or out of a ship.

WINDING-*tackle pendant*, a strong rope made fast to the lower-mast-head, and forming the support of the preceding tackle.

WINDLASS, fig. 58, pl. 3, a machine used in merchant ships, instead of a capstern, to heave up the anchors from the bottom, &c. It is a large cylindrical piece of timber moving round on its axis in a vertical position, and is supported at its two ends, by two frames of wood, *a b*, called knight-heads, which are placed on the opposite sides of the deck, near the foremast, it is turned about by levers, called handspikes which are for this purpose thrust into holes bored through the body of the machine, and like the capstern, is furnished with strong pawls, *c d*, to prevent it from turning backwards by the effort of the cable.

Spanish WINDLASS, is a machine formed of a hand-spike and a small lever, usually a treenail, to set up the top-gallant-rigging or for any other short steady purchase.

WIND-*rode*, is a term applied to a ship, which riding where the wind and tide are opposed to each other, is forced by the violence of the former to remain to leeward of her anchor.

WIND-*sail*, a sort of wide tube or funnel of canvas employed to convey a stream of fresh air downwards into the lower apartments of a ship, being let down through the hatches, and kept extended by means of several wooden hoops, the upper part is open on one side, which is braced to the wind so as to receive the full current of it which fills the tube, and rushes downward into the lower regions of the ship. Ships of war have generally in hot climates, 3 or 4 of these wind-sails.

To WINDWARD, towards that point of the horizon, from whence the wind blows.

WINGERS, small casks stowed close to the side in a ship's hold, where the large casks would cause too great a rising in that part of the tier.

WINGS, a name given to those parts of the hold, and orlop-deck, which are nearest to the sides. This term is particularly used in the stowage of the several materials contained in the hold.

WINGS, are also the skirts or extremities of a fleet, when ranged in a line abreast, or when forming two sides of a triangle. It is usual to extend the wings of a fleet in the day-time, in order to discover any enemy that may fall in their track, they are however, commonly summoned by signal to draw nearer to the center of the squadron before night.

WOOLDING, the act of winding a piece of rope about a mast or yard, to support it in a place where it is fished or scarfed, or when it is composed of several pieces united into one solid, See fig. 66, pl. 6, where, *fff*, represent the wooldings.

WOOLDING, is also the rope employed in this service.

To WORK, to direct the movements of a ship, by adapting the sails to the force and direction of the wind. A ship is also said

To WORK, when she strains and labours heavily, in a tempestuous sea, so as to loosen her joints or timbers.

To WORK *double tides*, a phrase used in the dockyards, implying that the people perform the work of three days in two.

To WORK *up junk*, to draw yarns from old cables, &c. and therewith to make foxes, points, gaskets, sinnet, or spun-yarn.

WORKING *to windward*, the operation by which a ship endeavours to make a progress against the wind. See BEATING, PLYING, TURNING, and TACKING.

WORMING, the act of winding a rope spirally about a cable, so as to lie close along the interval between every two strands; a smaller rope is wormed with spunyarn; It is generally used as a preparative for serving, and causes the service to lie smooth and round.

WORM, an instrument used to pieces of artillery, to draw the charge, or to take out the bottom of the cartridge, which sometimes remains in the chamber after firing, and which by being on fire, might explode the next charge, while being rammed home, whereby the man would probably lose both his hands, hence it is indispensibly requisite that a gun should be wormed, at least, every third discharge, fig. 86, pl. 7.

WORM-*eaten*, the state of a plank, or of a ship's bottom, when a number of cavities are made in it by a particular kind of worm which abounds in the tropical climates.

WRECK, the ruins of a ship which has been stranded, or dashed to pieces on a shelf, rock, or lee-shore, by tempestuous weather, or by accident.

To WRING *a mast*, is to bend or strain it out of its natural position by setting the shrouds up too taught. This phrase is also applied to a capstern, &c. when by too great a strain, the component parts of the wood become deranged, and are thereby disunited.

WRING-*bolts*, are bolts used by shipwrights to bend and secure the planks against the timbers, till they are properly fastened by bolts, spikes, and treenails.

WRING-*staves*, strong bars of wood used with the preceding article.

X.

XEBEC, a small three-masted vessel, navigated in the Mediterranean Sea. In fine weather, with a fair wind, they carry one or two very large square sails; when close hauled, these are taken down, and large lateen sails set, but in foul weather these are also laid by, and small lateen sails hoisted in their stead, the Xebec is distinguished from all other European vessels by the great projection of the prow and stern, beyond the cut-water and stern-post respectively. The Xebecs generally mount from 16 to 24 cannon, and carry from 300 to 450 men.

Y.

YACHT, a vessel of state, usually employed to convey princes, ambassadors, or other great personages from one kingdom to another. As the principal design of a Yacht is to accommodate the passengers, it is usually fitted with a variety of convenient apartments, with suitable furniture. The Royal Yachts are commonly rigged as Ketches, except the principal one, which is equipped as a ship. They are commanded by Post-captains of the Navy. The smaller Yachts,

which are rigged as sloops, are destined for the use of the Commissoners of the Navy, &c. Private pleasure boats, when sufficiently large for a sea voyage, are also termed Yachts.

YARD, a long piece of timber suspended upon the masts of a vessel, to extend the sails to the wind. They are either square, lateen, or lug-sail, the first are suspended across the mast at right angles, and the two latter obliquely. The square yards, fig. 63, pl. 4, are of a cylindrical form, tapering from the middle, which is called the *slings*, towards the extremities, which are termed the *yard-arms*, the half way between the slings and the yard-arms, is termed the *quarter*.

The large *lateen* yards, are usually composed of several pieces fastened together by wooldings, fig. 71, pl. 6, which also serve as steps whereby the sailors climb to the peek or upper extremity, in order to furl or cast loose the sail.

The mizen-yard of a ship, the main-yard of a bilander, and the yards of a lugger, though they are not, strictly speaking, lateen yards, are nevertheless hung obliquely on the mast, and the slings are nearer the fore end, than the aftmost end or peek.

YARD-*tackles*, strong tackles suspended from the main and fore-yard-arms of ships of war, &c. whereby, with the assistance of the stay-tackles, the boats and other weighty matters are hoisted in and out.

To brace the YARDS, to traverse them about the masts so as to form greater, or lesser angles with the ship's length. See BRACE.

To square the YARDS. See LIFT and SQUARE.

Dock-YARD. See DOCK-*yard*.

YARD-*arm and yard-arm*, a phrase applied to two ships, when they are so near, that the yard-arms of the one nearly touch those of the other.

YARD-*arm pieces*, pieces of timber kept in readiness to repair the yard-arms in the event of their being carried away or broken.

YARN,

YARN, one of the threads of which ropes are composed. See ROPE-YARN, SPUN-YARN, ROGUES-YARN, &c.

YAW, the movement by which a ship deviates from the line of her course, towards the right or left in steering.

YAWL, a boat, usually rowed with four or six oars. See BOAT.

YEOMAN, an inferior officer under the boatswain, gunner, or carpenter of a ship of war, and usually charged with the stowage, account, and distribution of their respective stores.

YOKE, a small board which crosses the upper end of a boat's rudder at right angles, and having two lines extending from its opposite extremities to the stern sheets of the boat, whereby she is steered as with a tiller.

YOUNKER, a general name for a stripling in the service.

Z.

ZENITH, the point in the heavens directly over our heads, as NADIR is that which is directly under our feet.

ZENITH-*distance*, the angular distance of any celestial object from the point over our heads at the time of observation.

FINIS.

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Errata.

BUOY ROPE, for *pl.* 1, read *pl.* 2.
CLAW-*off*, for be at, read *beat*.
DRIVER, for, as fig. 64, read *as x fig.* 64.
To MUFFLE *the oars*, for holes, read *tholes*.
REEL, for fig. 63, pl. 6, read *fig.* 73, *pl.* 6.
SAIL, for fore-sail and mizen, read *fore-sail e, and mizen.*
SAILING, for in *e* and *i*, read *in e and t*.
SPUNGE, for as fig. 80, read *as a fig.* 80.
KNOT, after 96, read *Diamond-Knot*, 120, &c.

Plate 1.

Fig:1 to 26.

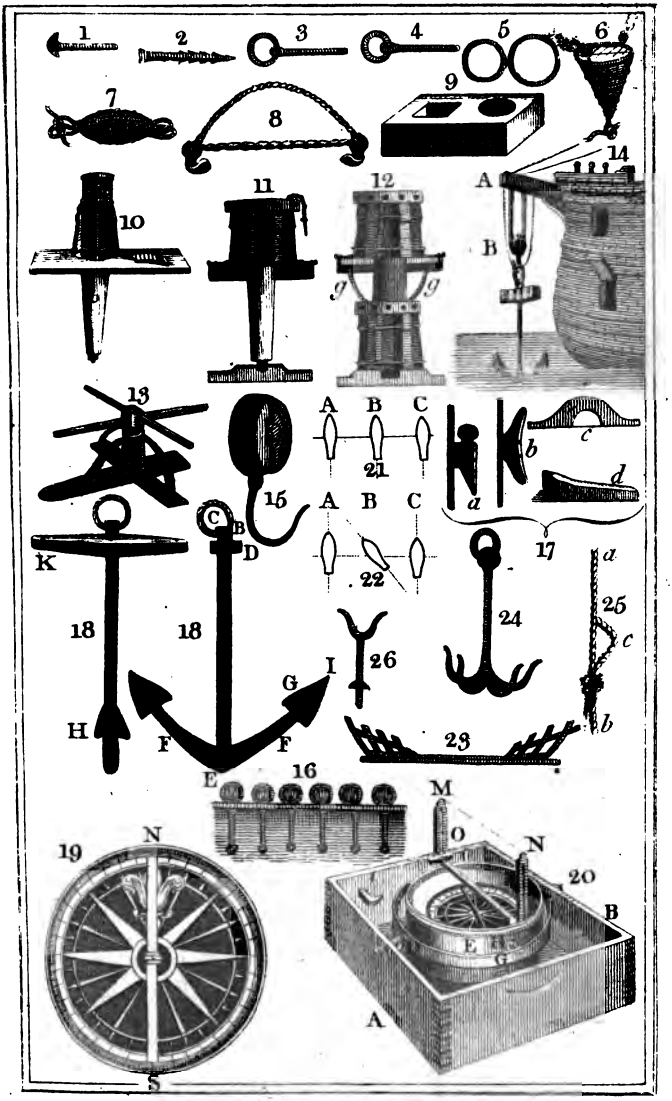
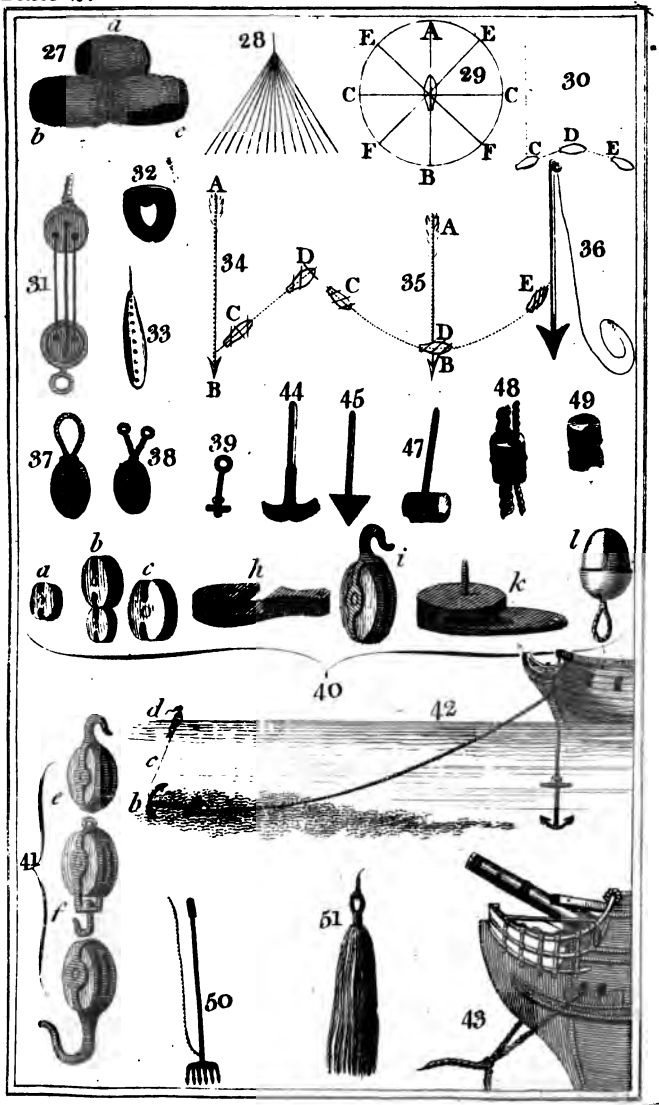


Plate 2.

Fig. 27 to 51.



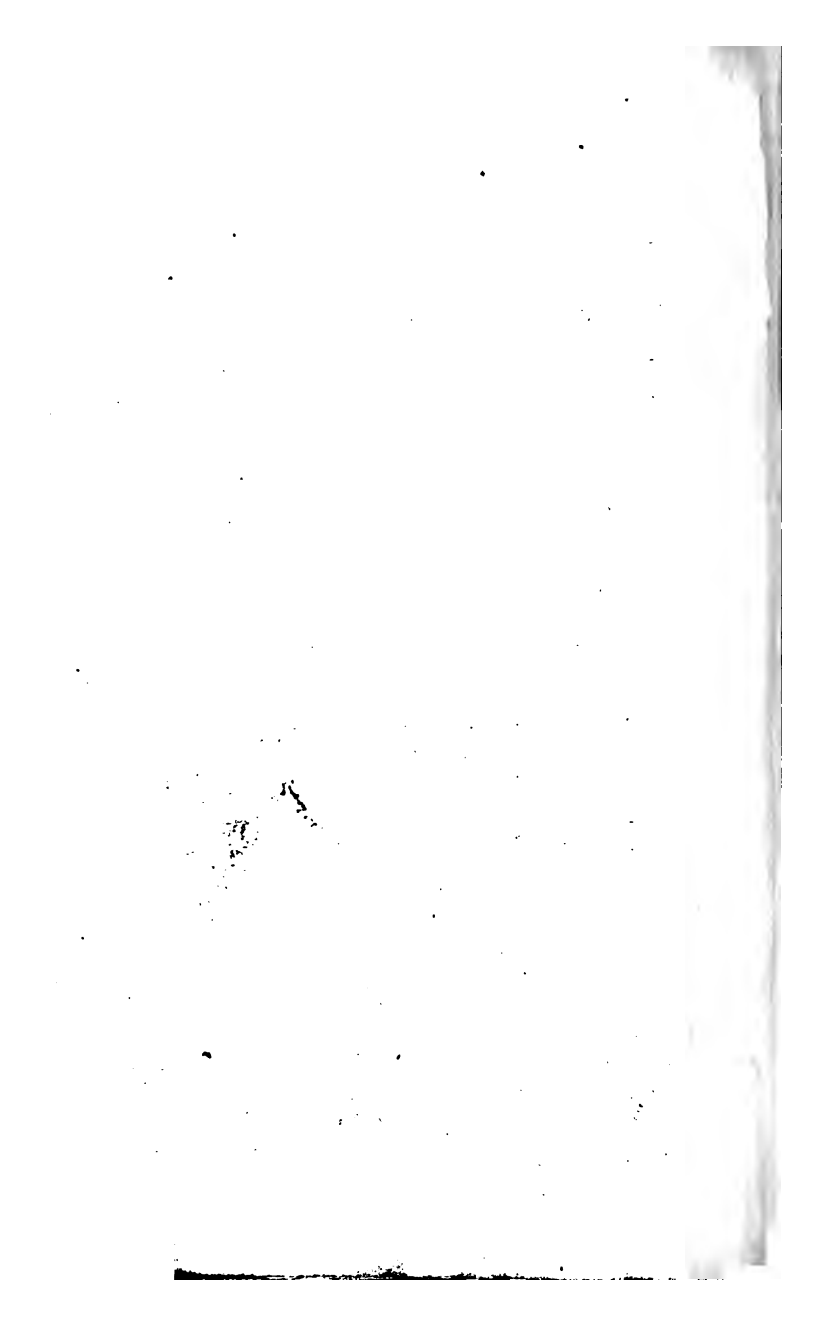


Plate 3.

Fig. 52 to 62.

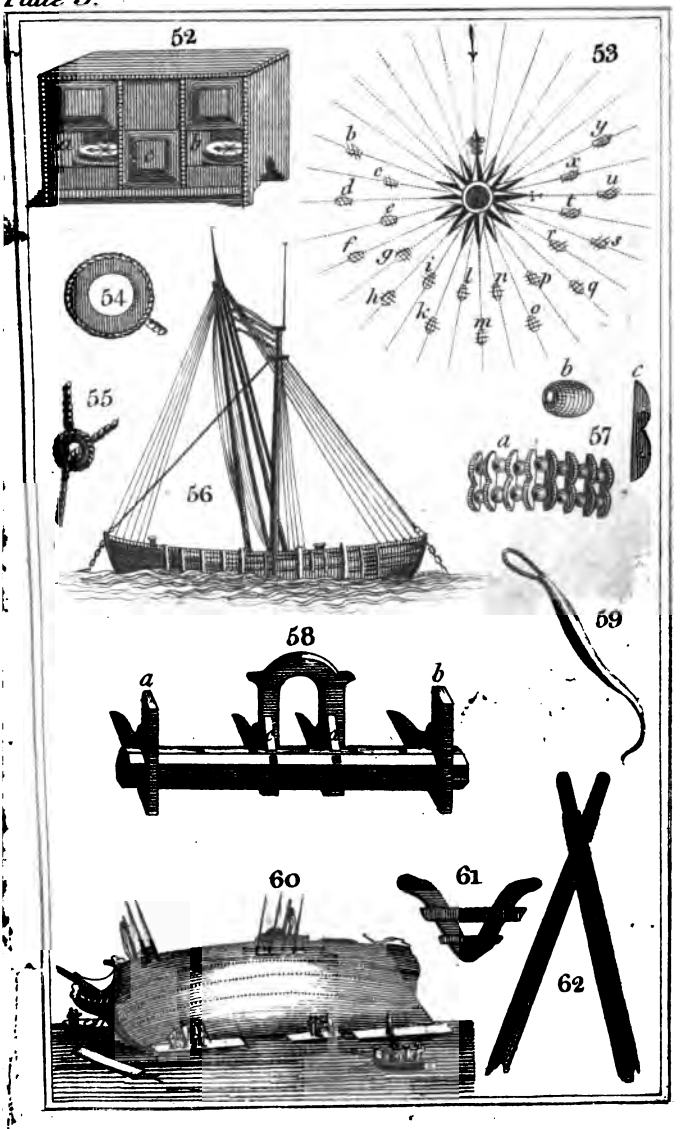
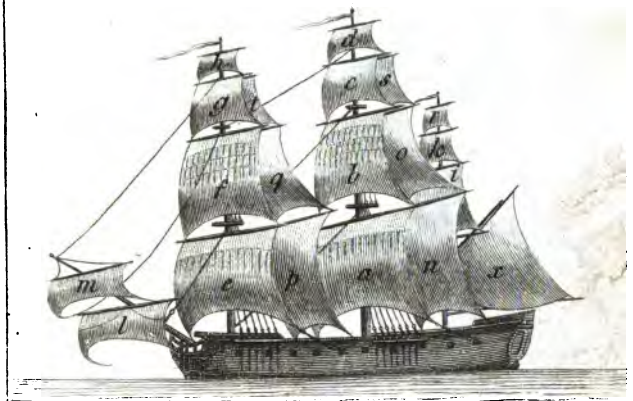


Plate 5.

Fig. 64 & 65.

64



65

Plate 6.

Fig. 66 to 74.

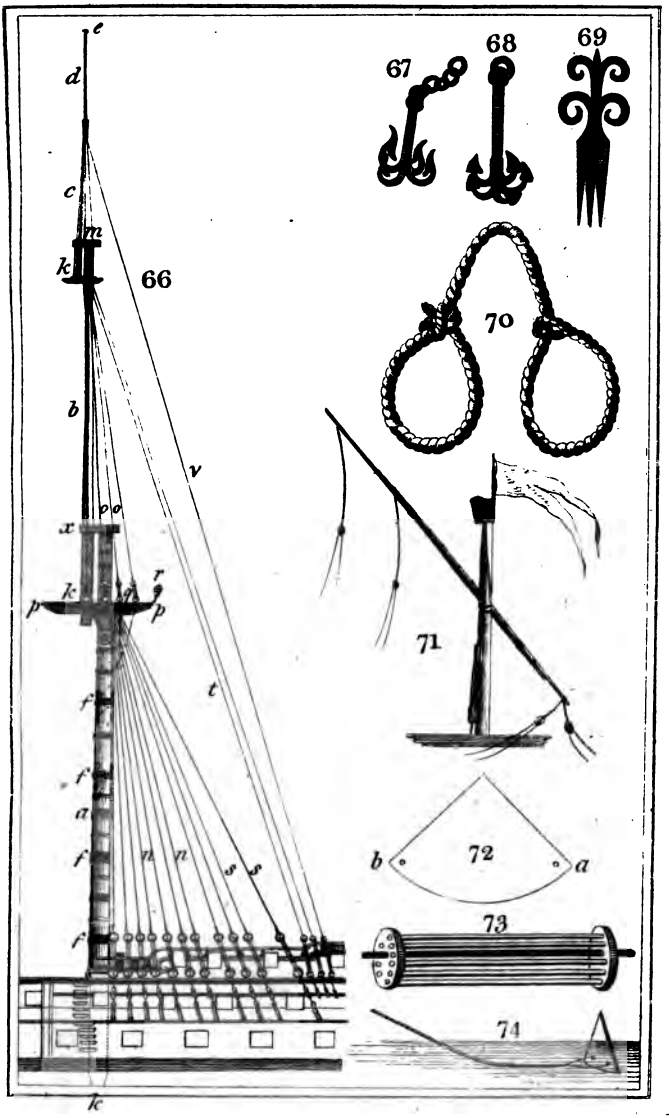


Plate 7.

Fig. 75 to 91.

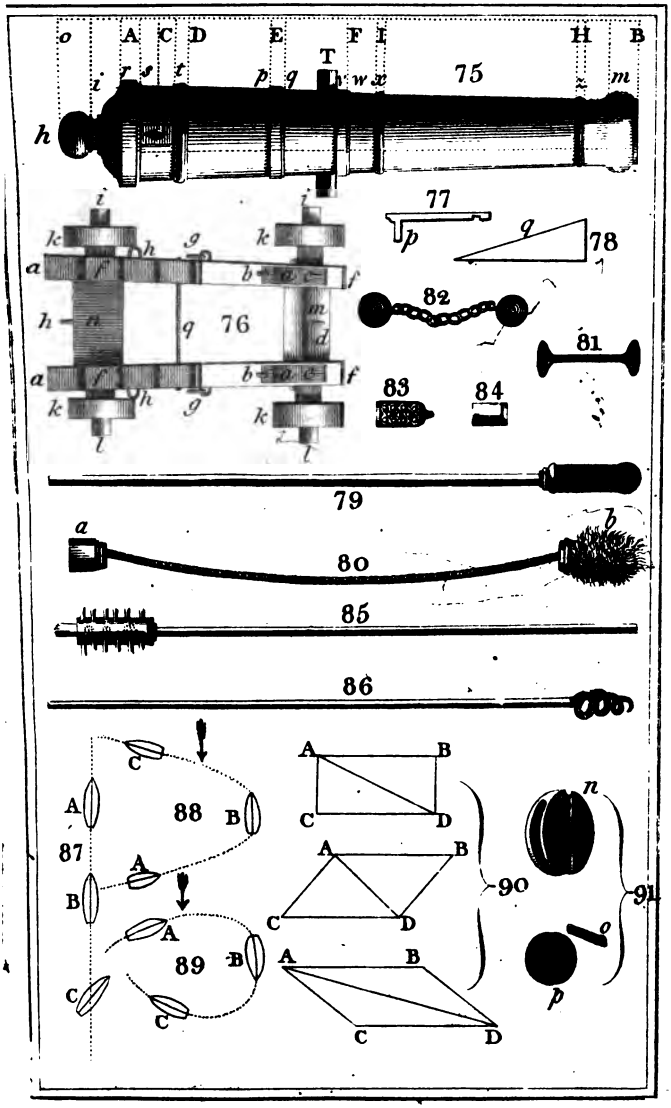


Plate 8.

Fig. 92 to 120.